Measuring Transparency: A Learning-focused Assignment Rubric

Guide to Assessing the Focus of Assignment Descriptions

Michael Palmer & Jennifer LaFleur
University of Virginia, Center for Teaching Excellence

Emily Gravett
James Madison University, Center for Faculty Innovation

Contents:

- Overview
- Rubric
- Validity
- Scoring
- Uses & Inter-rater Reliability
- Data Analysis for Pre-Post Pairs
- References

Overview

By combining recommendations for effective assignment design (e.g., Wiggins, 1998; Nilson, 2010; Walvoord & Anderson, 2010; Bean, 2011; Boye, n.d.) with principles of transparency in learning and teaching (Winkelmes, 2013) and the value-expectancy theory of achievement motivation (Wigfield & Eccles, 2000), we have developed a comprehensive rubric capable of assessing the quality of and guiding the design of major, or "signature," assignment descriptions. The rubric defines broad criteria characteristic of well-designed assignments; breaks the criteria down into a set of concrete, measurable components; and suggests what evidence for each component might look like in an assignment description. While valid for major, signature assignments, it is flexible enough to accommodate a diverse range of levels, disciplines, institutions, and learning environments yet nuanced enough to provide summative information to educational developers using the tool for research purposes and formative feedback to instructors interested in gauging the quality and focus of their assignments.

The rubric focuses on four criteria characteristic of learning-focused assignment descriptions: (1) purpose, (2) task(s), (3) criteria/assessment, and (4) additional learning-focused qualities. These criteria do not necessarily map onto any specific section of an assignment description; instead, users of the rubric are directed to search for evidence of the quality of all criteria across the document. This allows an assignment description to be rated without having to rely on a prescribed or templated format.

We break down each criterion of the rubric into multiple components. The four components in the *purpose* section describe the ways in which the assignment description articulates what knowledge or skills students will gain and what practice they will get. The five components in the *task(s)* section describe the ways in which the assignment description articulates the steps required to complete the assignment and how students might best approach them. The five components in the *criteria/assessment* section describe the ways in which the assignment description articulates what excellent student work looks like and how their work will be assessed. Finally, the five components in the *additional learning-focused qualities* section describe the ways in which the assignment description attends to organization, motivation, inclusivity, and other learning-focused principles.

Each of the 19 components on the rubric is designated as essential (components 1, 2, 5, 6, 7, 10, 11, 12, and 15; marked ***), important (8, 13, 16, and 17; marked **) components, or less important (components 3, 4, 9, 14, 18, and 19; marked *) and is scored on the strength of supporting evidence. Strong evidence indicates that many (but not necessarily all) of the characteristics of the component are present and match the criteria closely. Moderate evidence indicates that a few of the characteristics of the component are present and/or only partly match the criteria. Low evidence indicates that very few of the characteristics of the component are present and/or do not match the criteria.

You may use our assignment rubric for research purposes as long as you provide reference to the following:

> Palmer, M. S., Gravett, E., LaFleur, J. (2016, November). *Measuring the Transparency of Assignment Descriptions.* Interactive session presented at the national conference for the Professional and Organizational Development Network in Higher Education, Louisville, KY.

Questions? Contact Michael Palmer at mpalmer@virginia.edu.

Rubric

"Essential" components are marked ***; "important" components, **; and "less-important" components, *.

Criterion	What the component looks like in the written document:	Ideas for where to look and examples of what to look for (not all need to be present):
Purpose	*The assignment description clearly states what knowledge or skills students will gain and what practice they will get.* 1. Measurable student learning objectives for the assignment are articulated.***	• Learning objectives may be embedded in an introductory statement of purpose, in a description of the assignment, or in their own easily identifiable section. • Objectives are written using specific, measurable action words (e.g., compare, evaluate). • Learning objectives focus on what the students will need to do, not the assignment, course, or instructor. • Ideally, the assignment learning objectives should align with the course learning objectives, but this is difficult to know without looking at the syllabus.
	2. The assignment is authentic, practically useful, and/or relevant to students' lives beyond college.***	• The value of the assignment is usually found in the introductory statement or description of the assignment. • Authentic assignments place students in real or realistic scenarios in which they perform work similar to that of experts or professionals in the discipline/field. • Students might be asked explicitly to inhabit a role or context beyond a student in a course. • The assignment makes a connection between the activities or practical, transferrable skills that it involves and those that students will use now or after college.
	3. The relevance of the assignment in the context of the course is clearly articulated.*	• A statement of relevance to course material (e.g., "As we have discussed in class…") is usually found in the introductory statement or description of

the assignment.
- This component may be difficult to assess since the relevance may be stated in the description of the assignment on the syllabus.

4. Learning objectives are appropriately pitched to the course level, class size, position of the assignment within the course, and the characteristics of the students taking the class.*	• This component can be difficult to assess for anyone except the instructor or someone with extensive knowledge of the course, discipline, curriculum, and institutional context. When used for research purposes, it may be necessary to exclude this component. In this case, the scoring system must be adjusted.

Task(s)

It is clear what the students will do and how they will do it

- The task selected is well-suited to fulfill the purpose of the assignment.

5. The task is aligned with the purpose.***

6. The type(s) or genre(s) of the assignment is clear and defined.***
   - The type (e.g., essay, digital media project, infographic) is usually discovered in the name or title of the assignment, but it is sometimes indicated under another separate section.
   - The assignment describes or defines the genre for students, rather than assuming that they will know what, for example, a "research paper" means in that course.
   - The assignment may contain multiple types or genres, but these must be clearly defined and contribute to the overall purpose.

7. The sequence of the assignment seems logical and well-paced and the major steps within that sequence are described.***
   - Steps may be delineated using numbers, bullet points, checklists, or transitional words (e.g., first, second, next, then, etc.).
   - How to approach each step is clear.
   - The presence of multiple due dates may indicate the assignment has been broken into a logical sequence with different steps.
   - The sequence seems well-paced, with not too many tasks occurring or due all at once.
   - It is noted which parts of the process students will learn more about later.

	8. Formatting requirements or restrictions, the weight or worth of the assignment, and/or any important due dates or deadlines are specified.**	• These details usually appear in their own separately labeled sections. • Instructors may use special formatting (e.g., bold, underline, italics) to emphasize important details of the assignment. • While the weight or worth of the assignment is often articulated in the syllabus, it is good practice to reiterate it on the assignment description.
	9. Tips for successfully completing the task, beyond the assessment criteria, are provided.*	• These tips may appear as a list or a table. • Tips might include, for example, comments from past students, recommended resources, or common mistakes to avoid. • This may be difficult to assess because the tips may appear in supplementary material, as part of an in-class discussion, or on the syllabus.
Criteria/ assessment	*The criteria describe what excellence looks like and allow students to effectively self-evaluate.* 10. The criteria by which the assignment will be assessed are indicated.***	• These criteria may appear in the form of a checklist, rubric, or textual descriptions.
	11. The criteria specify characteristics that represent high-quality work.***	• The criteria may be presented holistically (where only the highest level of performance is articulated) or analytically (where multiple levels of performance are articulated). • The language describing the criteria is clearly defined, easily understood, and framed in a positive way.
	12. The assessment criteria are aligned with the assignment's purpose and task(s).***	• The criteria should be clearly derived from and supportive of the purposes and the task(s). For example, if part of the purpose of the assignment is for students to demonstrate their ability to closely read a text, then the skills associated with close reading need to be represented in the assignment's assessment standards.

	13. There are opportunities to practice and to receive formative feedback, according to the criteria, before final submission.**	• Opportunities for feedback may be indicated by separate steps and important dates. • Formative feedback can be provided by the instructor, as well as through peer feedback or critical self-reflection.
	14. The assignment refers students to multiple annotated examples of work that fulfill the criteria.*	• Asking students to discover such examples may be explicitly included as part of the assignment. • There may be examples included on or attached to the assignment. • The examples should be annotated, in writing or verbally, in or out of class. • The availability and/or quality of the examples may be difficult to assess as these can appear as supplementary materials or part of in-class discussions.
Additional learning-focused qualities	*The document is written with learners in mind, helping to organize, engage, and challenge them* 15. The tone of the assignment is positive, respectful, inviting, and directly addresses the student as a competent, engaged learner.***	• The positive, respectful, inviting tone is conveyed throughout the document. • Personal pronouns (e.g., you, we, us) are used, rather than "the students" or "they."
	16. The assignment is well-organized and easy to navigate.**	• The assignment is readable and the organization is clear and seemingly logical. • The presentation of the assignment elicits no major questions or confusions. • Layout, formatting, and organization emphasize the most important aspects of the assignment, rather than focusing students' attention on more minor logistical details (e.g., page length, margins).

17. The assignment is designed to be inclusive of and accessible to all students.**

- The assignment description is presented to students in multiple formats (e.g., hard copy, oral presentation, digitally, and is fully accessible for students with disabilities).
- The assignment is flexible enough to allow students to compose or communicate the final product in a variety of modalities (e.g. print, oral presentation, multimedia).
- Students are encouraged to create work that is accessible to other students (e.g. electronic work is screen-readable or video projects have accompanying transcripts or closed captioning).
- The assignment avoids unnecessarily asking students to imagine, assume, or speak from stereotypical or stigmatizing roles.
- For group assignment, the instructor makes clear the value of diverse teams and ensures their formation.

18. The assignment communicates high expectations and projects confidence that students can meet those high expectations through hard work.*

- The purpose, task, and criteria all indicate a high level of academic rigor (e.g., a purpose that promotes higher-order thinking, a task that mimics the types of work expert professionals perform, etc.).
- The assignment communicates the belief that each student can succeed.

19. The assignment is engaging.*

- The assignment is likely to pique students' interest because it seems interesting, different, intriguing, provocative, fun, and/or creative.

Validity

The rubric was designed to assess the quality of assignment descriptions in higher education. We define quality in terms of the description's focus on learning. Though we use Winkelmes et al.'s basic framework for describing transparency—purpose, task, criteria—we further define these salient characteristics and emphasize the importance of additional learning-focused qualities, such as organization, motivation, and inclusivity.

As noted, this rubric is best applied to major, or "signature," assignments that are substantive in scope and scale. They might be higher-stakes, scaffolded, project-based, multi-stage, and/or capstone-like assignments, such as end-of-the-semester research papers, final oral presentations, or digital media projects. The rubric can also be applied to shorter, in-class, or formative assignments by evaluating only the relevant components. For example, the assignment description for a non-graded, in-class assignment where students complete a worksheet should include purpose and task, but may not include any assessment criteria. When scoring these types of assignments, using only a subset of components will yield more useful information. The exact subset will depend on the assignment, but in many cases, it will minimally include the essential components for *purpose*, *task(s)*, and *additional learning-focused qualities*.

Scoring

Each of the 19 components on the rubric is designated as essential (components 1, 2, 5, 6, 7, 10, 11, 12, and 15; marked ***), important (8, 13, 16, and 17; marked **) components, or less important (components 3, 4, 9, 14, 18, and 19; marked **) and is scored on the strength of supporting evidence. Strong evidence indicates that many (but not necessarily all) of the characteristics of the component are present and match the criteria closely. Moderate evidence indicates that a few of the characteristics of the component are present and/or only partly match the criteria. Low evidence indicates that very few of the characteristics of the component are present and/or do not match the criteria.

To generate a score for an assignment, each essential component is awarded three points; important, two points; and less-important, one point, regardless of the strength of evidence. After scoring all of the components, each column is summed and scaled by the appropriate factor: the strong evidence sub-total is multiplied by 2, the moderate evidence sub-total is multiplied by 1, and the low evidence sub-total is multiplied by 0. This multi-directional weighting scheme, also used in the Palmer et al. (2014) syllabus rubric, ensures that the final score reflects the presence and quality of essential components. An assignment will not score high if, for example, it does not include meaningful student learning objectives (component #1, an essential component). It could score high, however, if it exhibited strong evidence for most of the essential and important components, but lacked evidence for the less-important ones, such as tips for successfully completing the task (component #9, a less important component).

The maximum score possible for an assignment description is 82. Exemplary assignment descriptions typically exhibit strong evidence for all essential and important components and fall in the range 70-82. Accomplished assignment descriptions typically exhibit strong evidence for at least all essential components, though not necessarily the important components, and fall in the range 54-69. Emerging assignment descriptions typically exhibit at least moderate evidence for all essential and important components and fall in the range 35-53. Unacceptable assignment descriptions typically lack evidence for most of the essential and important components and fall in the range 0-34.

Uses & Inter-rater Reliability

We designed the assignment rubric for two primary purposes: as a formative/educative tool and as a research tool. As a formative tool, the rubric may be useful to both instructors and educational developers. Instructors can score their own assignments to see where on the continuum—*Unacceptable* to *Exemplary*—their

assignment descriptions fall and use the rubric as a guide to revise existing assignments or develop new ones. Instructors may even find it useful to share the rubric with their students, as a way to increase their awareness about the important components of an assignment and hone their meta-cognitive abilities. Educational developers might use this rubric to provide formative feedback to instructors on their assignment descriptions during consultations, to train CTL staff on how to give feedback, or to incorporate it into workshops or other types of programming. The rubric might even be productively shared with students in the context of CTL student-faculty partnerships for developing course content or simply to be more transparent about the assignment design process.

Likewise, scholars could pursue various research projects using the rubric. For instance, researchers might study students' perceptions of two different assignments at opposite ends of the spectrum; perceptions of the instructor, the course, and other elements of the learning environment could also be studied. Another obvious avenue for research would be an extensive analysis of a large sample of assignments; while we tested our rubric on dozens of assignment descriptions, more could be done. Finally, the rubric could be used as a pre-/post-assessment tool for educational development initiatives, such as workshops, faculty learning communities, institutes, or other opportunities, wherein instructors are focused specifically on improving the learning-centeredness of their assignments.

When using the rubric for these kinds of research purposes, we recommend the following process to ensure inter-rater reliability:
1. Each assignment description should be initially scored against the rubric independently by at least two raters.
2. Component-level and overall scores should then be compared between raters. All components defined as essential in the rubric having a rater difference greater than 0 and all other components having a rater difference greater than 1 should be re-scored by the researchers.
3. Rescoring should be done collaboratively, without knowledge of the original scores, until consensus is reached through conversation.

This process should produce differences in the total scores between raters less than or equal to 8 points (or less than 10% of the total score possible). The total score for each syllabus should then be determined to be the average of the raters' total scores.

Data Analysis for Pre-Post Pairs

If a researcher wishes to analyze data for pre-post pairs, we recommend calculating normalized gains ($<g>$) for each pair as described by Hake (1998): $<g> = 100*$(post total score – pre total score)/(82 – pre total score), where 82 is the maximum score possible. This number takes into account the possible gain between pre- and post-scores for each instructor. (Note: If the full rubric is not used, the total maximum score in this equation should be adjusted accordingly.)

We define the region of low gain to be less than or equal to 0.3, moderate gain between 0.3 and 0.7, and high gain greater than or equal to 0.7. The overall normalized gain ($<<g>>$) should be calculated by averaging the normalized gains for all pairs analyzed. This calculation allows one to predict the gain in assignment description score an average instructor would expect to achieve after redesigning an assignment regardless of the starting point.

References

The set of references informing this work include the following:

Anderson, P., Anson, C., Gonyea, B., & Paine, C. (2009). *Using results from the consortium for the study of writing in college.* Retrieved from http://nsse.indiana.edu/webinars/TuesdayswithNSSE/2009_09_22_UsingResultsCSWC/Webinar%20Handout%20from%20WPA%202009.pdf

Aronson, J., Fried, C., & Good, C. (2002). Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence. *Journal of Experimental Social Psychology*, *38*, 113–125.

Bandura, A. (1997). Motivational determinants of risk taking behavior. *Psychology Review*, *64*, 201-252.

Bean, J. (2011). Engaging ideas: The professor's guide to integrating writing, critical thinking, and active learning in the classroom. (2nd ed.). San Francisco: Jossey-Bass.

Boud, D. (1988). Moving toward autonomy. In D. Boud (Ed.), *Developing student autonomy in learning* (pp. 17-39). (2nd ed.). London: Taylor & Francis.

Boud, D. (1995). Assessment and learning: contradictory or complementary? In P. Knight (Ed.). *Assessment for learning in higher education* (pp. 35-48). London: Kogan.

Boye. A. (n.d.). *How do I create meaningful and effective assignments?* Retrieved from https://www.depts.ttu.edu/tlpdc/Resources/Teaching_resources/TLPDC_teaching_resources/CreatingEffectiveAssignments.php

Brookhart, S. M. (2013). *How to create and use rubrics for formative assessment and grading*. Alexandria, VA: ASCD.

Covington, M. V. (1992). *Making the grade: A self-worth perspective on motivation and school reform*. New York: Cambridge University Press.

Gottschalk, K., & Hjortshoj, K. (2004). *Elements of teaching writing: A resource for instructors in all disciplines.* Boston: Bedford/St. Martin's.

Hake R. R. (1998). Interactive-engagement versus traditional methods: A six-thousand-student survey of mechanics test data for introductory physics courses. *American Journal of Physics, 66*, 64-74.

Marton, F., & Säljö, R. (1976). On qualitative differences on learning: I—outcome and process. *British Journal of Educational Psychology*, *46*, 4-11.

National Institute for Learning Outcomes Assessment. (2014). *DQP assignment library*. Retrieved from http://www.assignmentlibrary.org

Nilson, L. B. (2010). *Teaching at its best: A research-based resource for college instructors*. (3rd ed.). San Francisco: Jossey-Bass.

Palmer, M. S., Bach, D. J., & Streifer, A. C. (2014). Measuring the promise: A learning-focused syllabus rubric. *To improve the academy: A journal of educational development*, *33*(1), 14-36.

Palmer, M.S., Gravett, E., LaFleur, J. (2016, November). *Measuring the Transparency of Assignment Descriptions.* Interactive session presented at the national conference for the Professional and Organizational Development Network in Higher Education, Louisville, KY.

Palmer, M.S., Wheeler, L. B., & Aneece, I. (2016). Does the document matter? The evolving role of syllabi in higher education. *Change: The Magazine of Higher Learning, 48*(4), 36-47.

Paunesku, D., Walton, G. M., Romero, C., Smith, E. N., Yeager, D. S., & Dweck, C. S. (2015). Mindset interventions are a scalable treatment for academic underachievement. *Psychological Science*, *26*(6), 784-793.

Stevens, D. D., & Levi, A. J. (2013). *Introduction to rubrics*. (2nd ed.). Sterling, VA: Stylus.

University of Virginia. (2015). *Course design institute*. Retrieved from http://cte.virginia.edu/programs/course-design-institute

Walton, G. M., & Cohen, G. L. (2011). A brief social-belonging intervention improves academic and health outcomes among minority students. *Science*, *331*, 1447–1451.

Walvoord, B. E., & Anderson, V. J. (2010). *Effective grading*. (2nd ed.). San Francisco, Jossey-Bass.

Wigfield, A., & Eccles, J. S. (2000). Expectancy-value theory of achievement motivation. *Contemporary Educational Psychology*, *25*, 68-81.

Wiggins, G. (1998). *Educative assessment: Designing assessments to inform and improve student performance.* San Francisco, Jossey-Bass.

Winkelmes, M. (2013). Transparency in learning and teaching: Faculty and students benefit directly from a shared focus on learning and teaching processes. *NEA Higher Education Advocate*, *30*(1), 6-9.

Winkelmes, M. (2014). *Transparency in learning and teaching in higher education*. Retrieved from https://www.unlv.edu/provost/teachingandlearning

Winkelmes, M., Bernacki, M., Butler, J., Zochowski, M., Golanics, J., &, Weavil, K. H. (2016). A teaching intervention that increases underserved college students' success. *Peer Review*, Winter/Spring.