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PBL: Use RUBRICS to Empower Your Students

~ estimated 22-minute read ~

If there is one valuable time-saving tip I would provide new teachers when they create unit and summative assessment projects, it would be to fully embrace the power of project-based learning rubrics. When I was a Student Teacher Supervisor at Bloomsburg University in Pennsylvania, I devoted an entire class to teach the art and science of rubric creation. When project rubrics are drafted and designed with the end product or result in mind, as well as keeping your students at the forefront, the rubric becomes a helpful catalyst to produce the best project submissions from our students.

This blog post is going to share the content that university class offered my twelve student teachers who were very excited to do everything right and well to impress their host teachers. I also presented some of the rubric techniques as "secrets" I learned along the way that I did not learn in my college classes or textbooks.

Let's start with what a rubric is in our classrooms. I see it as simply a matrix of rows and columns to assess an end result product my students took the time and effort to research, plan, create, design, write, record, and/or package as an end result product submission.

These PBL summative assessment project end result product submissions in my course could be a video, podcast episode, writing, infographic, computer program, commercial, public service announcement just to name a few.

Rubrics in the form of tables gave me a quick yet comprehensive method to give a score my students' submissions for the time, creativity, productivity, and effort they invested in the end PBL result product.

When creating a rubric from scratch, I drafted the criteria of a rubric by considering and including:

- learning outcomes,
- my expectations for the end result product students will submit for credit,
- all attributes about the end result that would make it high-quality,
- the process students would take in creating the end result of high-quality and meeting all the expectations, and
- and the standards relative to not only the learning outcomes, but also the <u>ISTE</u> (<u>International Society for Technology in Education</u>) <u>Student Standards</u> since I also wanted students to develop their technology skills in my classroom.

The purpose of my rubrics was to 1) communicate my expectations to students about their project submissions, 2) show students the tool I will be used to grade their end result products so there were no surprises, and 3) to provide feedback to students in a way that would not only celebrate what they did well, but to also give them suggestions for improvement for the NEXT project end result product they complete in my course.

Some of the important advantages I see that project rubrics provide are:

For students?

- a tabular information of expectations, easier to read and decipher than the same information in paragraph form,
- the grade they will get following (or not following) the instructions and expectations of the project assignment,
- a good tool to provide a means for students to peer review each other's end result products or for self-assessment before submission, and
- a guide to improve future project submissions.

For teachers?

- a consistent way to grade students' projects,
- a guick way to grade a large student project,

- a summarized way to grade the project as a whole, as well as my students' performance with the content,
- an effective way to inspire and improve future student work with my timely, detailed, and supportive feedback, and
- a computational way to result the data I needed and was required to make datadriven decisions.

Even though it does take time to create a really good and effective rubric that delivers the purpose and advantages to both students and teachers outlined above, a whole lot of time is saved when grading big students' projects along with providing the right kind of feedback to students.

Let's talk about the parts of the rubric we need to develop when creating our PBL rubrics. I'll list each part below and the important role each part plays in your PBL project and summative assessment rubrics.

- Title the title of the rubric should have the same title of the assignment or
 project so students absolutely know which rubric will be used to assess the specific
 PBL assessment. Also, make sure "Rubric" is appended at the end of the
 assignment or project specific rubric title so again, students know that this specific
 tool will be used to grade their PBL work.
- 2. Criteria These are the categories of expectations of what makes an EXEMPLAR assignment or PBL project end result that students will research, plan, create, design, write, or perform in the PBL assignment or project. To make the rubric even MORE effective and easy to understand, teachers should create and showcase for students when introducing the rubric an A+++ example end product in mind and ask. This teacher exemplar will serve as a top-notch student submission for the assignment. When I created rubrics for my PBL assignments, I started with WHAT I wanted students to learn and HOW would they showcase that learning in the project end result product. I wanted to assess my students' knowledge and expectations with the results of their experiences, processes, troubleshooting, and creativity, leading to a final product, which was more like what a real job's task or responsibility looked like, rather than passive multiple-choice and True and False test questions. I was convinced the learning that led to the PBL end result product was the kind of learning that cements the knowledge and understanding in my students' minds.
- 3. **Criteria Descriptions** The succinct yet comprehensive description of each rubric criterion is how the rubric explains each expectation category. For example, if for a video resource end result after research could include, "Content", as a rubric

criterion and then the type of content that is expected in a student's submission needs to be described as WHAT content should be included and HOW should the content enhance the end result, with the assignment or project's purpose and intention in mind. Also, as you describe each expectation category, make sure not to include many elements in the description that should be included in one criterion. Making criterion descriptions holistic and descriptive in vocabulary they understand not only helps the student, but also helps the teacher when grading students' end result products and reports.

4. **Ratings** – It is this rubric part I feel is where most of the "rubric errors" happen with teachers at both K-12 and higher education levels. Make sure there are at least four to five ratings per criterion when aiming to grade student work fairly and accurately with the specific student submission and student in mind. Three or less ratings per rubric criterion limits the vast variety of student submissions meeting a particular criterion. For example, if my rubric only has three ratings per rubric criterion, then I only have an A, C, and F grade for each criterion. Now, please note some criteria may have only three or even two ratings. For example, if a video length needs to be 3-4 minutes long or a report needs to fall between 900-1000 words, either the student's project submission meets the range expectations, or it does not. In these two instances a "Meets Expectations" and "Does Not Meet Expectations" makes perfect sense. In other words, there is no "middle of the road" here for these types of "number" or "present" criteria. A "present" criterion could be, for example, if a reference list was included in the student's submission. The student either followed the expectations on the time or number ranges, or what needed to be included, so yes, this is what I call, a binary criterion, either Yes or No.

Also, another very important attribute of rubric ratings are the names of the ratings you choose and to make sure, they are positive. Below are some of my rating title family favorites:

ExemplaryAccomplishedDevelopingBeginning	Exceeds ExpectationsMeets ExpectationsBelow ExpectationsBeginning Expectations	MasteryPartial MasteryProgressingEmerging
 Master Distinguished Proficient Intermediate Novice 	ExcellentGoodSatisfactoryMinimalNeeds Improvement	ExemplaryAccomplishedAcceptableEmerging

	•	Beginning

5. **Rating Values** – We find that here is also where there tends to be a big range in what is best in rubric design. It is my belief that each criterion is worth no more than four **or** five points in value. So, if I have four ratings, each one is worth its aligned value in sequence: 4, 3, 2, 1, which also in my mind, is aligned to a 4.0 grading. It is good to have a Missing rating but since it is missing, all missing ratings would equal zero. If it's not there, a rating cannot be given, and a zero does makes sense, which would turn into the fifth rating. My title for this rating is either Missing, Not Included, or Skipped. I don't feel like these three rating titles are judgmental and only represent the element itself is not present in the student's project submission.

When an individual rubric criterion is given a value of 10 points, 15 points, or more, it doesn't end up being fair to the student when there are only four or five ratings because the end grade will be calculated with a bigger points-gap between ratings.

If you are finding you have an individual criterion that should be valued at more points because there is more involved in delivering that expectation, you have the choice to 1) do that, make one or two rubric criterion a higher score than the rest of the criteria on a rubric, or 2) split that one heavy criterion into two to three separate criteria, which a high score in each of the three criterion would equal the original larger point value for that one original rubric criterion.

The next step after creating the rating titles and rating scores is to describe exactly what earns that specific rating using a rating description, just like you wrote a description for the criteria. You also want to start with the rating description of the rubric criterion description would earn the highest points. Again, write the rating description using verbiage students will understand. What is another solid practice is to not only create an exemplary example of the project to show students when introducing the rubric, but to also create a "needs improvement" example so students have to decide, by reading the criteria descriptions and rating descriptions for individual criterion, what the "needs improvement" example earned given those descriptions. This connection between a project and a rubric really helps students when they are self-assessing or peer-assessing using the PBL rubric you created.

Another error I see on rubrics are rubric ratings that start with the lowest rating right beside the criteria's descriptions. What feels better to the student and shines

more attention on the exemplar score is to start with the highest rating for criterion description and then moves down the scale to the lowest point value. This high-to-low point layout starts students with the BEST score in mind when reviewing the rubric and relating the highest expectation for a criterion and the highest score matching it showing directly to the right of the criterion description.

- 6. **Total Points** This may seem like a given, but I have seen many rubrics that have very specific criteria, with descriptions, and valued ratings, but forgot to communicate a total points per assignment or project. This should either be the last row in your rubric or printed below the rubric table. I like to bold the total points to get the attention of my students.
- 7. **Feedback or Notes section** I like to have a place under the rubric table where I can type or write additional notes, questions, and comments about a student's work. I also use Feedback and Notes to "pump up" my student for the NEXT project summative assessment that is coming up. I like to shout out specific points about the student's submission that 1) I may not have a criterion, description, or rating description, that the student included that went beyond my expectations, or 2) I noticed something in the student's process when creating the end product and want to shout out the student, or 3) I see given the end result that the student overcame an obstacle and did so very well. One example may be if a student was absent during class when they were able to work on their submissions, and the student still submitted the assignment by the due date given absences.

Let's review the PBL Project Rubric tips and techniques that I found to empower your PBL project summative assessment student submissions as well as to give attention to the rubric itself!

- 1. Remember, the rubric is not a report card. You want to not only communicate a grade, but you want to share what was done very well, what, with one or two changes, would have improved the submission, and give the student a sense of pride of what the student did well and for the student to look forward to the next project. It is very important to make students feel good when they are reading your PBL project rubric ratings and feedback.
- 2. It is critical that you introduce the rubric when you introduce the project or summative assessment. This pairing communicates to the students WHAT they are doing for the project assignment, HOW they will do it, WHAT they have as support to complete the project, and WHAT is expected to earn a high grade on the project.

- 3. It is just as important to show students an exemplar Teacher Example of the project or summative assessment that earns top marks in each of the rubric criteria when introducing the project rubric. That way, students actually see a real example of each criterion with a high marks rating description, and it models exemplar student end products submitted. Show the teacher exemplar and ask students to grade it according to the rubric.
- 4. Another great example is to first show an example that does not meet the marks on two, three, or several rubric criteria. This, again, is another solid way to make sure students know what type of submission will not earn high marks, and what needs to be present in their submissions.
- 5. Train your students to use your PBL project rubrics to guide, pace, and assess their work in creating the final project submission. Having students look at an exemplar and needs improvement examples and decipher the submission using the rubric is a valuable technique to get students on board with the rubric and your expectations.
- 6. I always include in my project and summative assignment instructions for students to review and self-assess their own end result with the rubric **BEFORE** submitting the end result for credit.
- 7. **Another winning step is to ask student to peer assess each other's end result product**, providing feedback to the student in a way that students have the choice to either revise their product using their peer's suggestions for the higher grade, or ignore the suggestions if they do not believe the suggestions will help them earn a higher grade. You may either use the same rubric, which is a solid connection to the teacher's expectations, or use my easy, quick, and succinct **3 P's Peer Review**, that asks peer reviewers to provide a **Praise**, **Pose**, **and Polish** communications about the student's work.

Communicating to students what is expected when they delve into your large PBL summative assessments and projects not only provides information about grading, but also helps students pace themselves while meeting your expectations. Providing clear and comprehensive expectations with criteria titles, descriptions, ratings, ratings description, rating points, and feedback or notes with the use of project rubrics is super important in leading students to successful and meaningful learning and putting that learning into a logical practice to pride framework and connection.

Want to jump into using rubric templates to customize your secondary PBL multimedia projects? Check out my Multimedia Project Rubrics for PBL – Video and More – Editable – Secondary (teacherspayteachers.com) that provides 16 editable .docx rubric templates for you to save time in creating comprehensive and best practice scoring rubrics for your grading.

Please comment below—What is ONE step you want to make sure you do and include the next time you create a rubric for a PBL summative assessment or project? Or share your comments on social media and tag @EdTechenergy.

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