

GETTING THE CULMINATING PROJECT RIGHT

Michael Katims, Ph.D., and Eeva Reeder

The Washington State Board of Education has mandated a new graduation requirement for all students, beginning with the graduating class of 2008, to complete a Culminating Project (CP) as evidence of “demonstrating both the learning competencies and preparations related to Learning Goals 3 and 4” (WAC 180-51-061, see footnote #8). We have been working with a number of schools and districts on this new requirement, particularly on the required local assessment standards and procedures.

In our work, we have identified a number of dilemmas districts must resolve if they are to develop a CP system that satisfies the requirement and also “gets it right” for students. Think about, for example, the problem of insuring that the work required of students provides valid evidence of learning related to the goals.

If the work produced by students as part of their CP is to provide evidence of students’ achievement of goals 3 and 4, then there must be a direct link between the work required of students and the elements of the goals. Many educators think this link is automatically created through the student work itself. However, *this is not the case*.

Consider one district with which we work. Students in this district are required to produce an argumentative paper. To satisfy this requirement, students identify a significant topic, issue, problem or question from any classroom content area that interests them. They conduct research on the issue/problem to learn more about it, discover what others think about it, and determine their own position on it. Then they write a paper arguing for their position on the issue. Supporting documentation for this assignment describes it as work that demonstrates students’ critical thinking and writing abilities. Logic suggests that this is the case.

But what if district staff assess the paper using the district’s written communication rubric, which only looks at how the paper was written? In this case, the student’s writing ability will be assessed, but no judgment made about the adequacy of the student’s

analytic and logical thinking, nor of the ability to form a reasoned judgment. Yet, forming reasoned judgments is the core of State Learning Goal 3 — the learning competency about which the argumentative paper is supposed to be providing evidence! A student who writes well has not necessarily provided evidence of sound reasoning. Without specifically evaluating this aspect of the paper, the writer’s ability to form a reasoned judgment cannot be assumed from a well-written paper, nor assumed to be absent from a poorly written one.

Because of our assessment expertise, for the past two years we have been assisting schools and districts in their efforts to develop and implement their local version of this new graduation requirement. In particular, we help educators define the assessment criteria and standards for the various components of the project, no matter how varied the approaches. For example, our work includes the assessment of project proposals, project documentation, personal reflections, oral presentations, and 13th-year plans (sometimes called 5th-year plans).

We have come to believe that how criteria/standards are specified makes the critical difference between projects that are perceived as simply one more graduation “hoop to hop through” and projects that are worth doing — projects that contribute meaningfully to the educational program as well as to student learning and preparation for post-high school life.

The Product and the Process

Our work is focused on the development of what we call “instructional rubrics.” This is the *product* of our work. Equally important to the product is the *process* we engage in with teachers and administrators in the development of these rubrics.

Our *process* for developing these rubrics involves engaging school/district CP staff in refining their understanding of the work they require of students and in clarifying their values about the work they want students to produce. These values are then reflected in the rubrics produced.

We are most often asked to join a district or school’s process after important decisions have already been made regarding the work students will have to produce as evidence that they have achieved the state learning goals. From a traditional viewpoint of assessment, this

makes sense. But our experience suggests the opposite. We have come to believe that in order to get the new graduation requirement right, decisions must be made *very early* in the process about the assessment criteria and standards that will be used to make judgments about the quality/adequacy of students' work.

Thinking about the assessment rubrics to be used *before* finalizing decisions on the work to be required of students provides two benefits: (1) it informs the way the assignment needs to be framed, and (2) it insures that the work students create will provide valid evidence, directly related to the intended learning goal.

So what are instructional rubrics, the *product* of our work? Similar to more familiar scoring guides, instructional rubrics are different in that they provide richly detailed descriptions of the quality elements of types of student performance. These descriptions help assessors make consistent, reliable judgments. More importantly, they provide both teachers and students with information they need for teaching and learning. In fact, the rubrics are called *instructional* because teachers use them both to design lessons to teach elements of quality performance and to provide students with feedback about their work — information that helps students know how to improve it. We believe that these kinds of rubrics are the key to getting the CP requirement right.

Attending to the CP assessment criteria and standards through the development and use of instructional rubrics improves the process in three critically important ways:

- (1) Insures that the work required of students provides *valid evidence* of State Learning Goals 3 and 4;
- (2) Insures that teachers and other judges make accurate, reliable, *defensible* decisions about the quality/adequacy of the work students have done; and, most importantly,
- (3) Links assessment to instruction to insure that teachers and students have the information they need in order to develop the competencies required to be successful on the project, and on similar endeavors throughout students' lives.

We will demonstrate how the development and use of instructional rubrics can help schools and districts get the CP right in all three ways. In particular, we will show how linking well-defined standards of quality

work to instructional programs and practices will help prepare students not only to succeed on the CP, but also in life beyond high school.

Rubrics as the Essential Link Between Student Work and the State Learning Goals

We helped the previously mentioned district create two instructional rubrics that more directly link a student's argumentative paper to the specific competencies described in Learning Goal 3. One rubric assesses the complexity of the paper, where complexity is defined as the ability to see an issue: (a) from multiple viewpoints, (b) as multidimensional — having a number of different aspects that must be considered to adequately discuss the issue, and (c) as existing within a broader context. Now it is easy to make the argument that analytical reasoning is required to achieve each of these perspectives on the topic, and that the adequacy of a student's treatment of the topic is an indicator of the quality of his/her thinking.

The second rubric assesses the credibility of the supporting evidence the student employs and the soundness of the logic using this evidence to support his/her point of view. This rubric directly assesses the quality of the reasoning underlying the thesis the student is advocating. Using these two rubrics together to look at students' argumentative papers provides direct evidence of the thinking skills identified in Goal 3: they define what it means to form an adequately reasoned judgment. Without them, the paper is evidence of Goal 1, communication skills, but not of Goal 3, forming reasoned judgments.

We see this dilemma in many schools' approach to the CP. Another client, for example, wants students' main "project" to arise out of classroom work. However, if this work is to be submitted as evidence of students' problem-solving ability, the other central component of Goal 3, it must be assessed against criteria relevant to problem solving. But how many classroom assignments are actually judged in terms of how well students framed and solved a problem? (And how many school assignments give students *real* problems to solve?) Again, without assessment criteria relating students' work to the elements of problem solving, it may be interesting, even worthwhile work, but it will not be valid evidence of successful problem solving. We worked with staff in the school to create two rubrics to help teachers obtain classroom-based

evidence of problem solving. One rubric shows teachers how to make adjustments in classroom projects so they will be genuinely problem-based. The other is a rubric for assessing students' problem solving ability.

In both of these examples, focusing on the assessment criteria helped the schools solve problems with the validity of the evidence of student learning they were collecting. And by detailing these criteria in instructional rubrics, the districts were also solving other CP dilemmas.

The Necessity of Using Detailed, Descriptive Rubrics

Another equally important criterion in evaluating assessment systems is the accuracy and reliability of the judgments that assessors make about the quality of student work. Do the assessors agree on what constitutes adequate work, can they look at the same product/performance and agree on how good it is, can they agree on whether or not student work meets the standard? There must be assessment criteria related to meaningful standards, and these criteria must be specified so clearly that (1) assessors agree on decisions about the quality of the student work compared to the standards, and (2) these decisions can be defended and explained to the satisfaction of those being assessed. This is particularly important in the case of high-stakes decision-making, such as the graduation decisions to be made on the basis of the quality of students' CP work.

Our instructional rubrics achieve these assessment goals. But our experience has shown that most CP rubrics are not adequate to support reliable assessment decisions. The typical scoring guide is too vague in its descriptions of the characteristics of student work being assessed, and the relative importance of different aspects of the work being considered is unclear. As a result, these scoring guides promote consensus in scoring primarily by lowering the standards.

No one is deliberately lowering the standard of acceptable performance. Rather it is an inevitable outcome of the natural reluctance to label students' work as unacceptable, particularly in light of the high-stakes decision to be made. As a result, judges or assessors are inclined to assess students' work as meeting standard unless the scoring guide explicitly

describes work similar to that produced by the student and labels it as unacceptable. Unfortunately, most scoring guides do not provide sufficiently detailed descriptions of work to support negative decisions around a meaningful standard.

Consider an example of a rubric currently being used in a Washington State school district. The rubric consists of two parts, one to assess the project itself and another to use in assessing the student's presentation of the project. This rubric is typical of those we have encountered and illustrates the weaknesses of rubrics designed around concepts of scoring/grading. A comparison between the information provided to assessors by this rubric and the information provided by one of our instructional rubrics reveals the problem and a solution.

To help evaluate a student's presentation skills, the example rubric identifies a number of factors related to successful presentation and defines three levels of performance: Exceptional/pass, Adequate/pass, and Insufficient—to be redone.

- **Exceptional:** Highly poised; consistent eye contact; interesting; appropriate tone/language; effective use of visuals enhances presentation; high "WOW!" factor
- **Adequate:** Generally poised, but without the sophistication of the "exceptional" presentation; consistent eye contact, but does not use it to draw in the audience; student has made an effort to make the presentation interesting; appropriate tone/language; visuals don't enhance the presentation as well as they could; low "Wow!" factor
- **Insufficient:** Inappropriately informal, unrehearsed or disorganized; no, or very little eye contact; student has made little effort to make the presentation interesting; inappropriate tone/language (swearing, slang); no "Wow!" factor

Imagine having to make judgments about students' presentations with this information as a guide. What is the difference between "highly poised," and "poised, but without the sophistication of an 'exceptional' presentation?" Don't we all have to agree on what an exceptional presentation is before this rubric has meaning? How does one use eye contact to draw in an

audience? What does this look like, and how is it different from other eye contact? How can we tell if the student has attempted to make a presentation interesting to the audience? Is the use of slang and swear words the only aspect that distinguishes among different levels of tone/language? How could the visuals be made to enhance the presentation as well as they could? What is the “Wow!” factor, and is it the same for everyone? How do you distinguish between high and low “wow?”

These are some of the dilemmas that judges using this rubric will face when attempting to assess student presentations. But certainly the purpose of a scoring rubric is to resolve dilemmas, not to create them. An effective instructional rubric should provide information to help guide assessors’ perceptions of student performance and help them discriminate among performances of different quality. Absent this information, judges are most likely to resolve this dilemma by being very conservative about giving scores outside of the very broad, comfortable category of “adequate.” A few clearly superior presentations will be classified as “exceptional,” but by far the vast majority of presentations will be judged “adequate.” Likely the only presentations judged “insufficient” will be those of clearly poor quality, as defined in the very lowest level of this rubric.

The danger with adopting such a rubric is that the *acceptable* standard for student presentations will be lowered to the upper edge of unacceptable! When this happens, the students whose work will be judged as unacceptable are typically only the ones who did not care enough to complete or refine their work. Is this what we want “meeting standard” to mean – that a mediocre effort equates to competence, irrespective of the quality or skill revealed in the work? In this particular case, if the CP presentation is evidence of State Learning Goal 1, or competence in communicating “effectively and responsibly,” do we really want to say that students’ oral communication ability needs to be only slightly better than unacceptable to meet graduation standard? Or is it our intent that “meeting standard” signifies the student has the ability to do competent work?

In this case, the assessment tool does not provide the information assessors need to adequately discriminate among student performances, except at a very gross level. Now consider the difference in information provided to assessors about very similar oral

presentation criteria in the instructional rubric below. Note that these are the middle three levels of a five-level rubric that also describes truly outstanding performance as well as clearly poor performance. We designed this rubric with a district to help judges make difficult decisions around the middle range of performances — to help judges recognize work that has some elements of quality but that does not yet meet the standard of acceptable performance.

4: Above Standard	<ul style="list-style-type: none"> Relaxed but confident posture/movement, consistent and effective use of eye contact and gestures, and enthusiasm, all show that the student is prepared to speak on the topic Clear articulation, good use of variation in volume/tone, moderate pace/timing with pauses used to focus audience attention, all maintain audience interest/engagement Well-designed audio-visual aids are coordinated with and enhance the oral presentation; they help the audience both to stay engaged and to better understand
3: At Standard	<ul style="list-style-type: none"> Good posture, movement, and use of gestures, with minimal signs of nervousness; eye contact with minimal note reading, some enthusiasm, all indicate the student is ready to speak on the topic Calm, comfortable delivery, with good articulation; adequate use of volume/tone (minimal monotone); pace/timing varied to maintain audience interest; occasionally the pace may be a little too slow/fast, or articulation may be difficult to understand Audio-visual aids are integrated with the oral presentation; they add to the presentation and increase audience attention; overall visual appeal could be improved
2: Below Standard	<ul style="list-style-type: none"> Distracting body language, eye contact broken by much note reading, an absence of enthusiasm, all indicate a discomfort in speaking Nervous delivery with somewhat monotone articulation, some mumbling; uneven, hurried or slow pace, and/or poor timing limits audience engagement Audio-visual aids both add to and detract from the presentation; they may be: difficult to understand, too overpowering, or too difficult to see/hear

It is easy to see at a glance that these statements are lengthier, more elaborated, than the descriptors from the sample rubric, including detailed descriptions of different aspects of student performance (e.g. body language, vocal delivery/pace, audio-visual support).

They give judges clear images of what to look for in evaluating the quality of the performance. For example, it is certainly simpler for judges to agree on the student's use of eye contact once they place that behavior in the broader context of body language and when they compare what they observe in the student's performance to the descriptive statements in the rubric.

When a scoring rubric gives judges this kind of more detailed, descriptive information, it helps them know what to look for and enables them to classify what they see in a student product or performance. Then there is a high probability of substantial agreement among judges across the entire range of performances. There is agreement among judges with a weak rubric, but it is because no difficult decisions are made about the quality of student work.

In brief, there will be no meaningful standards for the CP without rubrics that provide the descriptive detail judges need to make and defend decisions about the quality of student work. Either there will be no meaningful standards because there is no agreement about what the standards look like in student work/performances, or because the standards are so low as to be meaningless. High quality, instructional rubrics can solve this problem.

The Real Purpose of the CP: Helping Students Develop Critical Competencies

The information judges need to make accurate, reliable decisions about students' work is exactly the information that teachers and students need to prepare to succeed on the CP. Many people do not yet think of assessment as an instructional tool that can contribute to improvements in student performance and achievement. But many educators and a growing body of research suggest that feedback, in the form of information provided by assessment, can greatly improve student learning.

In the end, this is the real goal of education reform, including the new graduation requirement. Yes, the State Board of Education is interested in assuring graduates, colleges and employers that receiving a high-school diploma means that a student has acquired the important competencies defined in the state learning goals. The intent is that schools will redefine their instructional programs to insure that students graduate having developed the competencies related to

the learning goals. Instructional rubrics that link assessment with instruction are the key to success.

In his 1998 book, *Educative Assessment*, Grant Wiggins elaborated a new vision of educational assessment based on the principle that "assessment should be deliberately designed to improve and educate student performance, not merely to audit it as most school tests currently do." At a time when much of the public — both parents and public officials — are skeptical about the value of state assessments and mandates, demonstrating that working toward the CP actually benefits both schools and students may be the most important aspect of the new requirement that districts must "get right."

How can assessment promote learning and achievement? One way is by providing to teachers and students the same information needed by assessors. What an instructional rubric does is give concrete meaning to the standards by which work is to be judged. If writing is to be clear, the rubric explains what clarity looks like in student writing. If an assignment is designed to reveal student analytical thinking, the rubric describes what thinking looks like in assignments of this type. If a project is intended to show students' problem-solving ability, then the rubric details what problem solving looks like and helps everyone — students, teachers, and other assessors — to distinguish good from poor problem solving.

Teachers use the information provided by rubrics in a number of ways. Obviously they use the information to assess/grade student work. But more importantly, they use the information to inform instruction. Instructional rubrics can help teachers plan lessons that teach the different elements of quality to students. For example, in the oral presentation example discussed earlier, a teacher might present explicit lessons around the use of audio-visual aids, helping students understand the difference between A/V support that enhances the presentation from A/V that doesn't improve it or actually detracts from it. And, when student performances reveal persistent problems with particular aspects of a performance, teachers can plan re-teaching lessons to insure that students grasp the important ideas underlying successful performance. But the most important instructional value of the rubric is using it to involve students in the assessment process as a regular part of teaching and learning (Black and William, 1998). When the rubric is used to provide *feedback* to students about their performance, it helps

them know how to improve that performance. Chappuis and Stiggins (2002) describe three ways that feedback based on instructional rubrics accomplishes this:

- Productive feedback tells students what they are doing right, pinpointing strengths and helping learners develop those strengths even further;
- Descriptive feedback should provide ways for students to improve in clear, constructive language;
- Feedback for learning draws an even bigger picture by telling students where they are now relative to defined learning targets — and where teachers ultimately want them to be. (p. 42)

This is the way it works: the instructional rubric identifies and defines a number of different, independent aspects of performance that, taken together, determine its overall quality. Each aspect is described at a number of different levels of quality--from the poorest work to adult-quality work. Students' work is assessed against these descriptions, with the teacher (and students!) matching individual work to the descriptions in the rubric. Students' work is returned to them along with the rubric that shows how their work was judged. The highest levels of the rubric, and particularly the level that defines the standard, tells students where teachers want them to be in their performance. The aspects of performance on which students receive high scores are their strengths, while the low scores show students where they need to improve to meet standard.

To be successful in providing this feedback that promotes learning, rubrics must be detailed and descriptive. As Chappuis and Stiggins explain, "instead of simply labeling student errors or omissions, effective feedback guides students to better performance throughout the learning process." They do this by using clear, constructive language that describes the quality aspects of the desired performance. In the example provided earlier, students can learn to improve their oral presentations from our instructional rubric, but they are unlikely to know how to improve based on the example rubric featured on the State Board of Education Web page.

Getting it Right

The stated purpose of the CP is to provide evidence that students have achieved State Learning Goals 3 and 4, particularly given that assessment evidence of student learning related to Goals 1 and 2 already exists. The WASL provides direct evidence related to Goal 1 (communication) through the assessment of reading, writing, and listening. It also provides limited evidence of Goal 2 (know/apply core academic concepts and principles) through the mathematics assessments. In addition, success in high-school course work provides further evidence that students have achieved Goal 2. The CP, implemented correctly, completes the picture of the high school graduate by providing evidence needed to show that the student has met all four of the state learning goals.

What are State Learning Goals 3 and 4? Since they link the K-12 school experience to students' lives beyond school, they are the most important goals in the education reform effort. Goal 3 is about using the knowledge and skills that students have acquired in school, particularly thinking skills, to do what adults must do throughout their lives: (1) solve problems, and (2) form reasoned judgments (e.g., make decisions, choices, etc.). Goal 4 is about understanding the big picture of life: understanding that success and opportunities, in both education and careers, are a function of the efforts people expend, the decisions they make, and the quality of their performances. These are vital lessons for our students to learn.

These two goals are understandably challenging for schools. That they are important no one doubts, but exactly how does one develop students' thinking or problem solving skills? How does one help a learner get the sense of personal responsibility and opportunity implied by Goal 4? And, how does one assess these critical competencies? What evidence can educators collect that lets them determine whether a student is a problem solver or has analytic reasoning ability? How does one make judgments about the quality of a student's thinking or problem solving? These are the difficult problems schools and districts face as they develop and refine their emerging CP systems. These are the very problems that instructional rubrics specifically solve:

- The process of developing an instructional rubric engages educators in thinking specifically about the elements of a particular state learning goal and the assignment or project students will be required to do to provide evidence of achieving that goal. The assignment and the assessment criteria are defined simultaneously, with the criteria explicitly linking the work to the goal. Once the kinds of work that will provide evidence of achieving the goal are determined, then the entire educational system, K-12, can be refined to include opportunities for students to practice and to learn the required competencies.

Instructional rubrics provide a concrete definition of the learning goal to guide curriculum/instruction as well as assessment.

- Instructional rubrics provide detailed, descriptive information about what kind of student work will provide acceptable evidence of the state goals and what quality of work will be judged acceptable. The descriptors provide crucial information that enables students to understand both their strengths and their weaknesses — where they currently stand relative to the acceptable standard — and helps them understand what to do to perform at standard. Teachers use this information to plan instruction, to provide feedback to students, and to help students learn how to assess their own and others' work.

Instructional rubrics help teachers and students work together to improve student performance and to achieve the state learning goals.

- The extended descriptions of instructional rubrics help guide assessors' perceptions and judgments. They promote consistency and reliability in judging because the level of detail in the descriptions of the rubric allow for relatively fine discriminations among different qualities of student work. This is particularly useful when judging student work that has some elements of quality in it but still needs to be improved to meet a meaningful standard.

Instructional rubrics help assessors to make reliable and defensible judgments about the quality of student work and to determine whether or not the student has met meaningful standards.

These are the three ways in which we believe instructional rubrics will help schools and districts get the CP "right," and we believe it is critical that they get it right in all three ways. More than with any other element of the state education reform effort, achieving success with the CP requires the willing and active participation of students, parents and our communities. This will only happen if the process of putting together a collection of evidence, including doing an independent project and exhibiting it, is perceived by all to be of real value to the student.

We have experienced approaches to the CP in which the school or district perceived it as an important and legitimate part of the instructional program, and the value to the student was obvious — it was the student's opportunity to learn about him/herself, explore a potential career interest, develop a significant new skill or gain knowledge about an important topic, develop a new perspective on an issue, solve a problem, and so on. We have seen students whose life plans were significantly influenced by their project experience. Unfortunately, we have also seen situations where the project requirement was perceived as useless, without merit or purpose aside from earning a passing grade or entitling the student to graduate.

We are convinced that students and the public will welcome and support the addition of the CP graduation requirement *if it is done right*. We believe that from the community's, and particularly from the parents' point of view, getting it right means four things:

- (1) **Valuable/Useful:** it adds significantly to the student's individual development and opportunities in life;
- (2) **Meaningful:** it holds genuine interest/importance to the student and is independently conducted by the student with support and guidance from teachers and mentors;
- (3) **Fair:** (a) it places a reasonable demand on students, for which they have been prepared, and (b) that their work is judged against clear and public standards;
- (4) **Challenging:** it is appropriately difficult (requires a learning stretch), so that students have something to be proud of when they complete their work.

These are appropriate and fair standards for judging CP systems, and they ought also to be the criteria towards which educators aim in their development

efforts. Furthermore, they are achievable standards for the CP if the work incorporates the focus on carefully specifying assessment criteria in high quality instructional rubrics.

References

Black, P., & William, D. (1998). Inside the black box: Raising Standards through classroom assessment. *Phi Delta Kappan*, 80(2), 139-148.

Chappuis, S., & Stiggins, R.J. (2002). Classroom Assessment for Learning. *Educational Leadership*, 60(1), 40-43.

Wiggins, G. (1998). *Educative Assessment*, San Francisco, Jossey-Bass Publisher.

Contact Information

Michael Katims, Ph.D.
425.774.2902
mk_redesign@earthlink.net

Eeva Reeder
206.364.9843
reedere@attbi.com