A PRIMARY TRAIT SCORING GRID WITH ASSESSMENT AND INSTRUCTIONAL USES

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Often more than a page long, a typical primary trait scoring device spells out—in phrases and sentences—the characteristics that will earn a paper a certain score. Here we offer an experimental primary trait rubric set up as an eleven-cell grid on which a rater can plot a student's score. Designed to assess a writer's support for an argument, this rubric is significant because it has instructional as well as evaluative uses. In this report we describe the grid, show how it was used to rate 1892 eleventh-grade essays, describe the results of that study, and suggest how the grid might be used in the teaching of writing at all levels. This primary trait rubric was developed by the Cincinnati Early English Composition Assessment Program (EECAP), a collaborative project undertaken by the Ohio Board of Regents, an urban school district, and a large state university.

BACKGROUND

Unlike forms of holistic scoring which look at a student's overall ability to respond to a rhetorical context (that used by the Educational Testing Service, for example), primary trait scoring isolates one component of written discourse and assesses the writer's apt-

ness for that particular trait. Lloyd-Jones argues that the advantages of primary trait scoring include its openness and its sharp focus: (1) what is being measured is easily observed by looking at the guide, and (2) by giving a sharp view of the complex aspects of a particular skill, it is more likely that strengths and weaknesses will be precisely identified.

Using a primary trait assessment, the National Assessment of Educational Progress (NAEP) researchers have demonstrated over a ten-year period (1969-79) that few seventeen-year-olds (22%) use data to support their interpretations and judgments. When asked to focus on evaluating stories and poems, these high school seniors found it difficult to explain their evaluations. The majority of the students either listed vague assertions and observations or simply wrote a synopsis or summary. Some of their responses contained references to the text, but most failed to include supporting statements. The NAEP (1981) report, therefore, suggested that young writers be required to "explain and defend their opinions at some length" (4) and then to find "evidence for judgments" and "state and defend interpretations and opinions." (5).

Responding to the NAEP recommendations, Kahn, Walter, and Johannessen provide teachers with three sets of sequential activities to help students who are writing about literature to document their opinions with data from the literary text. They base these activities on Toulmin's theory of argument, even bringing his terms of "claim," "data," and "warrant" into the classroom. The claim (taking a position) is the generalization or opinion that is proposed; the data (reason or reasons) are the evidence used to support the claim; and the warrant (elaboration) is the explanation of why the data support the claim. Kahn and her colleagues show students who are writing about works such as *To Kill a Mockingbird*, *Julius Caesar*, and *The Great Gatsby* how to support their claims with data and warrants and thus to write a persuasive essay.

THE PRIMARY TRAIT SCORING GUIDE

The Subjects and the Rhetorical Task

Prompted by the need cited in the NAEP findings, the goal of this study was twofold: to assess the ability of nearly 2000 eleventh-graders to substantiate an argument and to provide in-

dividual feedback about each student's performance on this trait. Like the work of Kahn, Walter, and Johannessen, this study incorporates the principles of Toulmin. Unlike their work, however, which focused on essays written about literature, this study applies Toulmin's principles to the type of public discourse commonly required in placement tests and other timed writing. With the following item (Figure 1), we assessed a student's ability to take a position on an issue (claim), to provide evidence for that position (data), and to show how the evidence authorizes the claim (warrants).

Figure 1
Stimulus for Eleventh-Grade Primary Trait Scoring

Early English Composition Assessment Program (EECAP)

Directions to Students:

You will have 30 minutes to plan and write the essay assigned below. Express your thoughts carefully, naturally, and effectively. Be sure to include concrete examples as you write. Write your essay on the sheet of paper that is provided. Use the bottom and back of this sheet to plan your essay.

Assignment:

You are an eleventh-grade student in a high school where athletes are often criticized for their low grades. Other students are similarly criticized for neglecting their studies to be active in such things as the band, drill team, cheerleaders, and school clubs. To encourage students to maintain good grades, your principal is considering a new policy. Your principal is proposing that students must maintain a "C" average to participate in any sports, club, or other school organization. Some students in your school disagree with your principal.
What do you think?
Using your best written English, write a well-organized letter to the principal either supporting or opposing the "C" average requirement. Give two or three reasons to support your argument. So, your audience for this letter is your principal. And your purpose is to persuade your principal to make the decision you would like him or her to make.

Using the Grid to Score an Essay

Figure 2 shows the eleven-cell grid designed to score the essays in the study.

Figure 2: Primary Trait Scoring Grid

PIECES OF DATA	WARRANTS: X — No or Minimal Use of Warrants	WARRANTS: Y — Moderate Use of Warrants	WARRANTS: Z — Extensive Use of Warrants
0	0		
0	1		
1	1	1	2
2	1	2	3
3 or more	2	3	4

NOTE: Simply taking a position without giving data or warrants is considered a 1. An essay that is too brief, addresses a different topic, or is garbled is considered a 0.

The use of data is registered on the vertical axis (0, 1, 2, 3 or more pieces of data) and the use of warrants on the horizontal axis (no warrants or a minimal use of warrants, a moderate use of warrants, or an extensive use of warrants). The "x", "y", and "z" labels for the use of warrants were added to facilitate the discussion of the papers.

To use the grid, a rater looks first for the writer's claim (in this case, taking a stand for or against the "C" average proposal) then for the data and warrants used to support that claim. An essay that addresses a different topic or is impossible to read is a 0 and the rater circles the 0 in the upper left-hand cell. Simply making a claim without giving any data or warrants is a 1 and the rater circles the 1 in the 0-X cell. A paper with one piece of data and with no or minimal use of warrants also earns a 1 (the 1-X cell) as does a paper with one piece of data and moderate use of warrants (the 1-Y cell). A paper which provides one piece of data and extensive use of warrants earns a 2 (the 1-Z cell). Using the grid in this fashion for each paper she reads, the rater locates the cell on the grid which shows the intersection of the writer's use of data and warrants and circles the number in that cell. That number is the student's primary trait score.

The grid was first used in a pilot study of thirty essays. The results of this investigation confirmed the NAEP findings that young writers often make a claim but then have difficulty supporting that position with data and warrants. One of the respondents in this study, for example, made the claim that his school should require a "C" average for eligibility in after-school activities. And he offered the data that not all high school athletes can look forward to careers in professional sports. He stopped short, however, of building the bridge between the claim and the data. In other words, he failed to convince the reader that the "C" average proposal is necessary because some high school athletes may need to demonstrate good grades to a future employer. Like many writers, this one assumed that the connection between the data and the claim is obvious and that it is unnecessary to elaborate on this assumed relationship. In fact, warrants bridge the gaps between a writer's claim and use of data and make a significant contribution to a reader's understanding.

Here we illustrate how the grid was used to rate three essays. Colin's (Figure 3) was one of the papers we used in the training session.

Figure 3: Colin's Essay

Dear Principal:

I would like to agree with your supporting the C average requirement. As a student at this school I feel school grades are far more important than any athletes games or practices. I agree we do need some kind of active programs but if a school student cannot keep up school grades, then he or she should not be aloud to participate in out of school activities. I feel you have made a smart choice in this problum.

Sincerely,
Colin

Colin makes a claim, "I would like to agree with your supporting the C average requirement," and then follows up that claim with one piece of data, "School grades are far more important than any athletes games or practices." Rather than offering any warrants to support his data, he reasserts his opening position, his claim, twice: "if a student cannot keep up school grades then he or she should not be aloud to participate in out of school activities" and "I feel you have made a smart choice in this problum." Working independently, all of the raters circled the number 1 in the 1-X cell, indicating the writer makes a claim and offers minimal data, but never follows through with any warrants. Colin unrealistically expects the reader to create the bridge between his claim and his data.

Karen's paper (Figure 4) provides a useful contrast.

Figure 4: Karen's Essay

Dear Principal:

I would like for you to enforce and keep your new proposal that all students involved in any extra after school activity must maintain a C average.

By doing this students will be able to put the most important priorities first. In this case, their learning time before their playing time. If you don't keep your new proposal, these students will not even bother to learn anything.

Most important we are sent to school by our hard-working parents, in order that we learn the basics so we can get into college and from there go on. We can't get into college with low grade averages. Because when we apply for college that's one thing they're going to look at, our grade averages, not how many clubs we were in, not how many instruments we played.

So by you keeping and enforcing this new proposal you will be helping students in this school to get heading in the right direction, which will help them a lot.

Sincerely,
Karen

In her paper, Karen likewise makes a claim, "I would like for you to enforce and keep your new proposal that all students involved in any extra after school activity must maintain a C average." But unlike Colin, she offers two strands of data: "By doing this students will be able to put the most important priorities first" and "we are sent to school . . . so we can get into college and from there go on." Karen also gives supporting if brief warrants for both pieces of data. Elaborating on her first reason, she argues that sports players won't "bother to learn anything" if the "C" requirement is not enforced, and on her second, "We can't get into college with low grade averages." All of the raters agreed that Karen's paper fell in the 2-Y cell because she made a claim, gave two pieces of data in support of that claim, and made moderate use of warrants to help her readers connect her data to her claim. Karen thus earned a primary trait score of 2 for this paper, the number circled by the raters in the 2-Y cell.

Shelley's paper (Figure 5) provides a contrast to both Colin's and Karen's.

Figure 5: Shelley's paper

Dear Mr. Kephard:

I am writing this letter in regard to your proposal of not allowing students to participate in extracurricular activities without at least a C average. I must tell you, I heartily disagree with this.

Firstly, those students that already do not maintain a C average, and are currently participating in extracurricular activities, just have a hard time managing their time well. Taking away after school activities will not, I repeat, *will not* make them spend more time studying . . . The old adage that you can't teach old dogs new tricks applies well, because these students with already poor study habits will not change overnight. I doubt many would spend those two hours studying.

Secondly, as a student of this school, it is my right to participate in a student government or a sport, or theater, if that is what I am really interested in. As you well know, I am extremely active in the theater department as that is what I want to do, and if that were taken away from me, I would feel as if I had no purpose. If one is interested in a certain area, why take it away from them just because they are not *as* interested in cutting up frogs and crayfish. That certainly seems like a ridiculous train of thought to me, and perhaps a waste of something promising.

Lastly, poor grades may be a result of family problems in the home or of a lack of sleep, an illness which caused excessive absences, or even a tough work schedule, and not necessarily a reflection of the time spent involved in extracurricular activities, or a result of this involvement. By cutting out those students who cannot maintain a C average, you are los-

ing many talented, hard-working individuals, who perhaps are *trying* to get their grades up, but still need a "release" or another place besides their school work to place their energies to break up the monotony.

I hope, Mr. Kephard, that when making your decision, you will take these thoughts into consideration: (1) difficulty in managing time well, (2) interest factor, (3) and poor grades being a result of other factors. Remember, colleges are in quest of the well-rounded individual and *everyone* in this school deserves the chance to be just that.

Thank-you for your time,
Shelley

Unlike Colin and Karen, Shelley not only makes a claim and supports it with three pieces of data, she also elaborates by providing warrants for each piece of data. She argues that the "C" average should not be a requirement because (1) for some students the cause of low grades may be poor study habits, not inadequate study time; (2) students should be allowed to pursue their natural interests and develop their gifts; and (3) that poor grades may result from any one of a series of personal or family problems that are unrelated to the time allotted to extracurricular activities.

It should be emphasized here that primary trait scoring is designed to assess a writer's use of a specific trait and not the overall success of the paper. While each of these essays could be faulted for other reasons (failure to address the audience, failure to assume a convincing role, inadequate control of mechanics, etc.), we chose only to assess the writer's ability to substantiate an argument. Within the parameters of the assignment (30-minute time frame with little if any time for prewriting or rewriting), Shelley generated ample data and warrants. Raters agreed that her paper was located in the 3-Z cell and thus earned a primary trait score of 4; they further agreed that hers is a case in which the use of the five-paragraph theme as a composing strategy may have helped her generate data and support for it.

While reinforcing Shelley's success in this area, her teacher would help her improve the rhetorical effectiveness of other aspects of her paper. Shelley might want to consider the impact of her tone, for example, or her sentence structure, on her audience. But unlike Colin and Karen who need to generate more information to make a persuasive case, Shelley is ready to begin shaping and reshaping her paper, perhaps generating more data, but concentrating on arrangement and style.

USING THE GRID FOR DISTRICT-WIDE ASSESSMENT

Training the Raters

Four sample essays (one for each primary trait score) were used to explain the grid to twenty raters (all high school English teachers). Twelve essays rated by the EECAP team—written on the same topic by a similar population under identical conditions—were then used to train the raters to use the grid. After four hours of training, the raters achieved a Kendall coefficient of .65 for these twelve essays. The scoring of the 1892 eleventh-grade papers was completed in ten hours on two successive Saturdays.

The Results of the Study

During the scoring sessions, where each of the essays was read by two raters, the group reached 60% agreement or. the primary trait scores. Fifteen percent of the ratings were aberrant. A Kendall coefficient of .61 was thus achieved in the main study.

Examining the results, we found that the data confirmed the findings of the NAEP. Most of the juniors in this sample had difficulty supporting a claim with sufficient data and providing adequate warrants for those data. Figure 6 displays the percentage of the students able to support an argument at various levels as measured by this scale.

Figure 6: Eleventh-Graders' Scores on Primary Trait Measure

Scale	Percent of Students
1 (low)	51%
2	21%
3	21%
4 (high)	7%

Fifty-one percent of the juniors were unable to support their claims with data and warrants. These students received scores of 1 or below on the numerical scale. Twenty-one percent of these juniors wrote essays that showed promise (rated 2). Twenty-one percent of these essays were judged to be good (3). Seven percent of these essays earned a score of 4.

Individual Feedback to Students

Following the rating sessions, we generated letters to each of the 1982 students we tested. Figure 7, an example of such

a letter, shows the feedback sent to Karen, a student whose essay we examined earlier (Figure 4).

Figure 7: Sample Letter Sent to Student

May 21, 1984

Dear Karen:

Twenty high school teachers from all over the city have now finished rating the "Dear Principal" letters that eleventh-graders wrote in their English classes in mid-February. We are writing to you today to give you your scores and to explain how the scores can help you.

We know that one important quality of a successful writer—whether in college or on the job—is the ability to offer concrete support for her ideas. We asked you to do just that, to take a position on your principal's proposed "C" average policy, give reasons to support your position, and elaborate on those reasons.

The teachers who rated your essay have commented on this aspect of your writing and have recommended how you can work next year to become a better writer. We asked two different teachers to read your essay. They may have made identical comments about your writing, or you may see some differences in their opinions. It's not unusual for different readers to have somewhat different opinions about a piece of writing. If the differences are significant, you may wish to consult a teacher about your essay.

As we told you when we wrote to you in January, your school will have senior English classes with an increased emphasis on writing. If you would like to sign up for one of these courses—and thus be better prepared for the writing you will do in college or at work—your school counselor can help you.

First Teacher's Comments: I found that you took a position and offered two reasons as support for that position. You also offered some thoughts to back up those reasons. This is good. Next year you might work toward expanding these thoughts and developing additional reasons.

Second Teacher's Comments: I found that you took a position and offered two reasons as support for that position. You also offered some thoughts to back up those reasons. This is good. Next year you might work toward expanding these thoughts and developing additional reasons.

Sincerely,
The EECAP Team

As this letter illustrates, the feedback focused on each student's ability to support an argument, pointing out both strengths and areas for further work. Because we could not expect every student and teacher to be familiar with the language of Toulmin, we wrote the letters with terms and concepts the entire audience would recognize. In addition to returning results to students, we sent class profiles to each of the teachers who participated in the study, as well as to guidance counselors and principals. This in-

formation about the eleventh-graders' ability to substantiate an argument suggested areas for future curriculum development.

USING THE GRID TO TEACH INVENTION AND ARRANGEMENT

Beyond its obvious evaluative use, this primary trait grid also has multiple possibilities for instructional use in the writing classroom. In his 1984 *Writer's Block: The Cognitive Dimension* Mike Rose underscores that limited patterns and rigid rules can in fact account for blocking in many students. He goes on to say, however, that the danger is not in giving students patterns, but in not helping students to know when to let go of them. He writes, "To help a writer struggling to find form for his ideas, a tutor might need to present certain simplified discourse patterns, even the five-paragraph form" (96). The teacher's job is complete, however, only when she is sure the writer understands that the form is a strategy, not a structure.

It would be counter-productive, for example, if the grid suggested to students that writing is quantifiable, that ideas and their development can or should be measured; that writers should or do write according to a formula, filling in the blanks as it were; that any one writer's aid, technique, or heuristic works in every situation for every writer. To use the grid in a way that helps writers expand rather than contract their process is to emphasize that the grid is one option, that it is not an end in itself, but rather a means to an end, and that every heuristic works better for some people than others, works better in some writing situations than others. The writer who is able to generate material easily as well as objectify her writing probably doesn't need the help the grid can offer.

Following are a number of possible strategies for using the grid as an aid in the composing process.

1. The grid can serve writers as a heuristic, a technique which helps them to generate information. A writer can, for example, record her data and warrants directly on the grid. And much the way listing generates further information, it is likely that this technique will also generate additional ideas. The advantage the grid has over a straight list is that it is constructed to show relationships, especially the interdependency of data and warrants.
2. For writers with trouble understanding the difference between making a claim and supporting that claim with data and warrants,

plotting those parts of an argument on a grid can help them visualize the differences. Students can work with professional samples, with each other's writing, and with their own writing.
3. Often overpowered by the many "ingredients" of good writing and sometimes blocked at the level of superficial correctness, students can use the grid to isolate one aspect of their writing and work on that aspect. In one draft, for example, a student may see that she has supported a claim with one reason that is very fully elaborated; in another she may see that she has given many pieces of data but made less extensive use of warrants. Students can quickly see there is no one "best" way to do a paper and that the choices a writer makes are determined by the context in which the writer is working.
4. In her book *Writing*, Elizabeth Cowan talks of a bare-bones outline, an outline the writer creates after the paper is written to check the arrangement of her ideas and to see her writing from another perspective. Plotting one's writing on the grid serves the same purpose of enabling the writer to distance herself from her writing and to some extent objectify it. She can quickly see how many reasons she is giving for a claim, how fully each is elaborated, and whether she wants to amplify or rearrange any of her ideas.
5. The grid can also help a writer to see that she is in control of her writing, for as she adds or deletes information, she can relocate parts of her paper on the grid and see its changing structure as well as recognize her power over her writing.
6. And finally, students can also use the grid in editing groups, both as a catalyst for discussion and as criteria for looking at their own and each other's papers. If students were routinely taught to evaluate their own writing in terms of data and warrants, we would be well on the way to reversing the NAEP statistics that point to students' use of unsupported generalizations.

Unlike, therefore, a sentence-style primary-trait guide, this graphic rubric has both an evaluative and an instructional use. As an assessment device, it is user-friendly and efficient. The rater has a copy of the grid for each paper she rates and circles the score in the appropriate square. As an instructional aid—and with the caveat that it be taught as "strategy" not "structure"— it can help a writer with both invention and arrangement, thereby encouraging the writer to focus on the entire composing process—

Invention, Arrangement, and Style—rather than blocking at the level of superficial correctness.

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