Appendix D

Sample Rubrics

The following two rubrics represent two different disciplines and two different ways of setting up a rubric: horizontal or vertical. Each rubric contains five levels of performance; rubrics may also have two, three, four, or even more levels. For more examples of rubrics and how to construct them, see Walvoord and Anderson, 2010.

Example 1: Rubric for Essay of Literary Analysis

Assignment: In an introduction to literature course, students wrote essays in which they advanced an interpretation of some aspect of the literary works they had been studying.

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<tr>
<td>Thesis: The thesis of the paper is clear, complex, and challenging. It does not merely state the obvious or exactly repeat others' viewpoints, but it creatively and thoughtfully opens up our thinking about the work.</td>
<td>The thesis is both clear and reasonably complex.</td>
<td>The thesis of the paper is clear, though it may be unimaginative, largely a recapitulation of readings and class discussion, and/or fairly obvious.</td>
<td>Thesis is discernible, but the reader has to work to understand it, or the thesis seems to change as the essay proceeds.</td>
<td>Thesis is irrelevant to the assignment and/or not discernible.</td>
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<tr>
<td>Complexity and Originality: The essay is unusually thoughtful, deep, creative, and far-reaching in its analysis. The writer explores the subject from various points of view, acknowledges alternative interpretations and varied literary critical lenses, and recognizes the complexity of issues in literature and in life. Other works we have read and ideas we have discussed are integrated as relevant. The essay shows a curious mind at work.</td>
<td>The essay is thoughtful and extensive in its analysis. It acknowledges alternative interpretations and recognizes complexity in literature and in life. Some other works are integrated as relevant.</td>
<td>The writer goes somewhat beyond merely paraphrasing someone else's point of view or repeating what was discussed in class AND/OR the essay does not integrate other relevant works we have read.</td>
<td>Writer moves only marginally beyond merely paraphrasing someone else's point of view or repeating what was discussed in class.</td>
<td>The paper is mere paraphrase or repetition of class discussion.</td>
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<td><strong>Organization and Coherence:</strong> The reader feels that the writer is in control of the direction and organization of the essay. The essay follows a logical line of reasoning to support its thesis and to deal with counter-evidence and alternative viewpoints. Subpoints are fashioned so as to open up the topic in the most effective way.</td>
<td>As for 5 but subpoints may not be fashioned to open up the topic in the most effective way.</td>
<td>The reader feels that the writer is in control of the direction and organization of the essay most of the time. The essay generally follows a logical line of reasoning to support its thesis.</td>
<td>The essay has some discernible main points.</td>
<td>The essay has no discernible plan of organization.</td>
</tr>
<tr>
<td><strong>Evidence, Support:</strong> The writer's claims and interpretations are backed with evidence from the literature, works we have read, secondary sources, and sensible reasoning. The writer assumes the reader has read the work and does not need the plot repeated, but the writer refers richly and often to the events and words of the literary works to support his/her points.</td>
<td>As for 5 but the writer may occasionally drop into mere plot summary.</td>
<td>The writer's claims and interpretations about the works are generally backed with at least some evidence from the works AND/OR the writer includes significant passages that are mere plot summary.</td>
<td>The writer's claims are only sometimes backed with evidence AND/OR large sections of the paper are mere plot summary.</td>
<td>The paper is primarily plot summary.</td>
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<tr>
<td><strong>Voice and Tone:</strong> The language is clear, precise, and elegant. It achieves a scholarly tone without sounding pompous. It is the authentic voice of a curious mind at work, talking to other readers of the literary work.</td>
<td>The language is clear and precise.</td>
<td>The language is understandable throughout.</td>
<td>The language is sometimes confusing. Several sentences do not track.</td>
<td>The language is often confusing. Sentences and paragraphs do not track.</td>
</tr>
<tr>
<td><strong>Sources:</strong> The essay integrates secondary sources smoothly. It quotes when the exact words of another author are important, and otherwise paraphrases. It does not just string together secondary sources, but uses them to support the writer's own thinking. Each source is identified in the text, with some statement about its author; there are no quotes just stuck into the text without explanation.</td>
<td>As for 5 but sources may be quoted with no contextual explanation AND/OR writer uses direct quotation when paraphrase would be better, or vice versa.</td>
<td>The essay incorporates some secondary sources and connects them to the writer's own points.</td>
<td>The essay strings together secondary sources with little or no explicit connection to the writer's own points.</td>
<td>There is no use of secondary sources.</td>
</tr>
</tbody>
</table>
**Grammar, Punctuation, Sentence Effectiveness:** There are no discernible departures from Standard Edited Written English (ESWE). The sentences are easily readable; their meaning is clear. Words are precise, relationships among sentence parts are clear, parallel forms are used for parallel ideas, and sentence structure and length are used for rhetorical purposes.

<table>
<thead>
<tr>
<th>Category</th>
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<tr>
<td>There are a few departures from ESWE AND/OR the sentences are generally clear and readable, but some words may be poorly chosen; some sentences may not make relations clear.</td>
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<tr>
<td>There are no more than an average of two departures from ESWE per page in the critical areas listed below.</td>
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<tr>
<td>There are more than two departures from ESWE. A few sentences may be unclear.</td>
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<tr>
<td>Many departures from ESWE and poorly constructed sentences interfere with meaning.</td>
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**Critical Areas:**

- Spelling or typos
- Sentence boundary punctuation (run-ons, comma splices, fused sentences, fragments)
- Use of apostrophe, -s, and -es
- Pronoun forms
- Pronoun agreement, and providing antecedents for pronouns
- Verb forms and subject-verb agreement
- Use of gender-neutral language
- Capitalization of proper nouns and of first words in the sentence
Example 2: Rubric for Scientific Experiment in Biology Capstone Course

By Virginia Johnson Anderson, Towson University, Towson, Maryland

Assignment: Semester-long assignment to design an original experiment, carry it out, and write it up in scientific report format. This is the major assignment in this course, titled “Scientific Research.” The course was instituted recently as a result of employer feedback that students were insufficiently prepared to really understand and carry out the scientific method. The goal of the course is to prepare students to conduct original scientific research and present it orally and in writing. There were no resources to make this a lab course, so the students had to conduct research outside the lab. Many student graduates will be working with commercial products in commercial labs in the area, e.g., Noxell. In the assignment, students are to determine which of two brands of a commercial product (e.g., two brands of popcorn) is “best.” They must base their judgment on at least four experimental factors (e.g., “percentage of kernels popped” is an experimental factor; price is not, because it is written on the package).

Title
5 Is appropriate in tone and structure to science journal; contains necessary descriptors, brand names, and allows reader to anticipate design.
4 Is appropriate in tone and structure to science journal; most descriptors present; identifies function of experimentation, suggests design, but lacks brand names.
3 Identifies function, brand name, but does not allow reader to anticipate design.
2 Identifies function or brand name, but not both; lacks design information or is misleading
1 Is patterned after another discipline or missing.

Introduction
5 Clearly identifies the purpose of the research; identifies interested audiences; adopts an appropriate tone.
4 Clearly identifies the purpose of the research; identifies interested audiences.
3 Clearly identifies the purpose of the research.
2 Purpose present in Introduction, but must be identified by reader.
1 Fails to identify the purpose of the research.
Scientific Format Demands
5 All material placed in the correct sections; organized logically within each section; runs parallel among different sections.
4 All material placed in correct sections; organized logically within sections, but may lack parallelism among sections.
3 Material placed in proper sections but not well organized within the sections; disregards parallelism.
2 Some materials are placed in the wrong sections or are not adequately organized wherever they are placed.
1 Material placed in wrong sections or not sectioned; poorly organized wherever placed.

Materials and Methods Section
5 Contains effective, quantifiable, concisely organized information that allows the experiment to be replicated; is written so that all information inherent to the document can be related back to this section; identifies sources of all data to be collected; identifies sequential information in an appropriate chronology; does not contain unnecessary, wordy descriptions of procedures.
4 As in 5, but contains unnecessary information, and/or wordy descriptions within the section.
3 Presents an experiment that is definitely replicable; all information in document may be related to this section; but fails to identify some sources of data and/or presents sequential information in a disorganized, difficult way.
2 Presents an experiment that is marginally replicable; parts of the basic design must be inferred by the reader; procedures not quantitatively described; some information in Results or Conclusions cannot be anticipated by reading the Materials and Methods section.
1 Describes the experiment so poorly or in such a nonscientific way that it cannot be replicated.

Nonexperimental Information
5 Student researches and includes price and other nonexperimental information that would be expected to be significant to the audience in determining the better product, or specifically states nonexperimental factors excluded by design; interjects these at appropriate positions in text or develops a weighted rating scale; integrates nonexperimental information in the Conclusions.
4. As in 5, but is less effective in developing the significance of the nonexperimental information.

3. Student introduces price and other nonexperimental information, but does not integrate them into Conclusions.

2. Student researches and includes price effectively; does not include or specifically exclude other nonexperimental information.

1. Student considers price and other nonexperimental variables as research variables; fails to identify the significance of these factors to the research.

**Experimental Design**

5. Student selects experimental factors that are appropriate to the research purpose and audience; measures adequate aspects of these selected factors; establishes discrete subgroups for which data significance may vary; student demonstrates an ability to eliminate bias from the design and bias-ridden statements from the research; student selects appropriate sample size, equivalent groups, and statistics; student designs a superior experiment.

4. As in 5, but student designs an adequate experiment.

3. Student selects experimental factors that are appropriate to the research purpose and audience; measures adequate aspects of these selected factors; establishes discrete subgroups for which data significance may vary; research is weakened by bias or by sample size of less than 10.

2. As in 3, but research is weakened by bias and inappropriate sample size.

1. Student designs a poor experiment.

**Operational Definitions**

5. Student constructs a stated comprehensive operational definition and well-developed specific operational definitions.

4. Student constructs an implied comprehensive operational definition and well-developed specific operational definitions.

3. Student constructs an implied (though possibly less clear) comprehensive operational definition and some specific operational definitions.

2. Student constructs specific operational definitions but fails to construct a comprehensive definition.

1. Student lacks understanding of operational definition.
Control of Variables

5  Student demonstrates, by written statement, the ability to control variables by experimental control and by randomization; student makes reference to, or implies, factors to be disregarded by reference to pilot or experience; superior overall control of variables.
4  As in 5, but student demonstrates an adequate control of variables.
3  Student demonstrates the ability to control important variables experimentally; Materials and Methods section does not indicate knowledge of randomization or selectively disregards variables.
2  Student demonstrates the ability to control some, but not all, of the important variables experimentally.
1  Student demonstrates a lack of understanding about controlling variables.

Collecting Data and Communicating Results

5  Student selects quantifiable experimental factors and defines and establishes quantitative units of comparison; measures the quantifiable factors and units in appropriate quantities or intervals; student selects appropriate statistical information to be utilized in the results; when effective, student displays results in graphs with correctly labeled axes; data are presented to the reader in text as well as graphic forms; tables or graphs have self-contained headings.
4  As in 5, but the student did not prepare self-contained headings for tables or graphs.
3  As in 4, but data reported in graphs or tables contain materials that are irrelevant or not statistically appropriate.
2  Student selects quantifiable experimental factors or defines and establishes quantitative units of comparison; fails to select appropriate quantities or intervals or fails to display information graphically when appropriate.
1  Student does not select, collect, or communicate quantifiable results.

Interpreting Data

5  Student summarizes the purpose and findings of the research; student draws inferences that are consistent with the data and scientific reasoning and relates these to interested audiences; student explains expected results and offers explanations or suggestions for further research for unexpected results; student presents data honestly, distinguishes
between fact and implication, and avoids overgeneralizing; student organizes nonexperimental information to support conclusion; student accepts or rejects the hypothesis.

4. As in 5, but student does not accept or reject the hypothesis.

3. As in 4, but the student overgeneralizes or fails to organize nonexperimental information to support conclusions.

2. Student summarizes the purpose and findings of the research; student explains expected results but ignores unexpected results.

1. Student may or may not summarize the results but fails to interpret their significance to interested audiences.

Source: Adapted from Anderson and Walvoord, 1990, Appendix A. Copyright 2007 by the National Council of Teachers of English. Used with permission.