

Working Smarter: Being Strategic About Assessment and Accountability

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Abstract

The worth of any school program is based on its contribution to student achievement. How do teacher-librarians contribute to this overall goal? What evidence do we have of the learning that results from our teaching? How do we use the results to inform our school communities and influence improvements? This article provides discussion points related to these issues and scenarios to provoke reflection and action.

No matter which community we live in, we are bound to hear educators deliberating on topics such as quality assurance, data driven decision making, and curriculum restructuring. Whether these discussions involve parents, teachers, administrators, school board members, or community leaders, two issues consistently emerge: the demand for accountability and the imperative for continuous improvement.

Teachers and administrators' views of the role of assessment have changed dramatically over the last two decades. Spurred on by a national focus on assessment reform, they have come to understand that assessment is both a tool for accountability and a blueprint for instruction (Fitzpatrick, 2000; Asp, 1998). The hard fact is that resources will always be limited in schools, and the programs showing the most "value" are the ones that will receive the funding. Fitzpatrick (2000) defines value as the degree to which the program's impact on the school goals is positive, describable, and visible. That is, decision makers look for and react favorably to information that shows the worth of instructional programs.

We are well aware that student achievement is a critical component in educational improvement and school reform. Administrators are ultimately concerned with what and how well students learn. School personnel who cannot demonstrate a contribution to student learning are marginalized or even eliminated (Neuman, 2000).

The question is whether or not teacher-librarians are active partners in this school wide view of assessment. Over ten years ago, Bob Berkowitz (1993) posed a critical challenge to the profession: What is convincing evidence that our students are competent to enter the information age? What do library programs really do for our students? These questions have taken on a new urgency in the face of continuing cuts in school library budgets and increasing reductions in library staffing across the nation.

David Loertscher and Ross Todd (2003) maintain that school library programs must tell the story of how effective libraries make a difference in the learning outcomes of students. Todd (2003) describes evidence-based practice as "day-to-day professional work that is directed toward demonstrating the tangible impact and outcomes of sound decision making and implementation of organizational goals and objectives" (7).

Following Loertscher's and Todd's train of thinking, my point is this: while we are *working harder* and *teaching harder* than ever, we need to seriously consider ways to

work smarter. We must show evidence that our dedicated labor produces demonstrated results in student learning. Input is vital; however, documented output is equally critical. In this article, I elaborate on the multi-pronged nature of assessment and evaluation, delineate a strategic approach to developing a workable assessment plan, and present examples of plans in action.

GOALS OF ASSESSMENT

As teacher-librarians, we focus on what and how well students master information-related skills that are foundational across curriculum areas. Working smarter begins with the understanding that the same evidence can be used for multiple goals and multiple audiences, namely the following:

- Empowering student learning
- Informing instructional effectiveness
- Communicating evidence of learning to parents
- Winning support from administrators
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Empowering student learning. By engaging students in assessment, we invite students to reflect on their own progress. Students more clearly understand what is expected. They connect new ideas to prior knowledge and strengthen their ownership over making the learning happen. Assessment also provides them with critical opportunities to give descriptive feedback as they are learning (Davies, 2000).

Informing instructional effectiveness. Assessment provides the instructional team--classroom teachers, teacher-librarians, and additional school partners--with crucial information on what students are learning and how teaching might be shaped to help students do even better. Assessment provides a map for planning curriculum and instructional activities (Harada & Yoshina, 2005). The result is more opportunities for peer learning and collaboration, more choices for students in the learning environment, and more integrated and interdisciplinary teaching (Falk, 2000).

Communicating evidence of learning to parents. While parents are interested in their children's scores on norm-referenced, standardized tests, they are also grateful for more personalized information that shows specific examples of what their children are actually learning. If students are creating their own learning portfolios, they include samples of their work, assessments of the samples, and reflections about what they learned, how they learned it, and what future directions they wish to pursue (Harada & Yoshina, 2005).

Winning support from administrators. School leaders are besieged with much to do and limited resources and little time with which to do it. When they have to make decisions about allocating funds and staffing positions, they want evidence built on systematically collected data to make their determinations. They also need the evidence in capsulated formats. Providing this type of documentation builds a compelling case for the value of the library program. In short, communicating evidence of what is being learned through library instruction is a vital tool for library advocacy.

ASSESSMENT THAT COUNTS

Teacher-librarians often tell me, “I am already providing a lot of statistical information to everyone. Isn’t that sufficient?” The statistics to which they are referring are quantitative reports on collection sizes, new acquisitions, student attendance, lost or damaged book counts, total classes taught, and logs of information requests filled and not filled. While statistics of this nature are helpful in elucidating the resources and input a library provides for learning, these statistics do not measure the extent of the learning.

An analogy might be useful here. Would we determine the success of an operation based on the types of instruments used by the surgeon, or the number of attending personnel in the operating room, or the years of experience of the surgeon? All of these factors might be contributing elements; however, we would surely agree that success should be measured by whether the patient got well as a result of it. By the same token, it would not be adequate to measure the *outcomes* of library programs solely by indicators of *input*.

What then might be measures of outcomes? While norm-referenced tests still hold reign in K-12 education, alternative school level assessment has a legitimate place in the total assessment picture. High-stakes testing figures prominently in No Child Left Behind; however, as Sharon Coatney (2003) points out, this type of large-scale testing is not helpful in determining “individual student needs or informing students about their progress on specific learning goals” (158). To provide a richer and deeper profile of the individual student’s learning, achievement of this Federal mandate also necessitates that assessment programs include *multiple measures* to appraise students’ higher-order thinking skills.

What does this assessment look like? According to Danny Callison (2003), this form of assessment, often referred to as authentic assessment, involves using a range of strategies to examine students’ information-seeking efforts and their final products. Anne Davies (2000) categorizes these assessment methods as observations, products, and conversations. The following are examples of tools used with these different methods:

- For observations: checklists of desired behaviors, rubrics that identify criteria for successful performance and describe different levels of performance, and rating scales that place levels of performance along a continuum.
- For products: checklists that list criteria for proficiency, rubrics that describe various levels of proficiency, and graphic organizers that organize and synthesize students’ work.
- For conversations: formal and informal conferences, logs to record thoughts and feelings about the content and process, and notes and letters to self-assess and seek feedback.

EMPLOYING A STRATEGIC APPROACH

Working smarter requires that we develop a strategy for action. Figure 1 outlines an approach that emphasizes linking library targets to school goals, starting small, and collecting and analyzing data to achieve multiple purposes with different audiences. Assessment must be both *formative* for examining student progress and instructional

decisions as well as *summative* in recognizing accomplishments and documenting evidence (Donham, 1998).

[Figure 1. Strategic approach]

1. *Determine school goals and priorities.* Obviously, the administration will invest most of the school's human and financial resources to meet the targeted priorities. Identifying these goals, then, is a critical first step in strategic planning.

2. *Determine the library's contribution to the goals.* By carefully identifying the major direction of the school program, we also decide where to channel our time and resources. We need to be visible and articulate regarding our role as partners in improving what and how students learn. By doing this, we emphasize the value-added nature of what we have to offer.

3. *Identify specific learning targets.* We teach a wide spectrum of skills in our respective information literacy programs. Because we work with entire school populations, it would be impossible for us to formally assess every lesson taught. We need to be selective. Questions that help us make workable decisions include: Which learning targets are most directly related to the school's goals? How do the library's targets match the classroom's learning goals? Which classes or grade levels might be most willing to collaborate with the library? The aim is to narrow our targets and work with a manageable cohort of teachers. We want to establish reasonable boundaries so that we are not overwhelmed with the assessment tasks.

4. *Establish criteria to measure student achievement of the learning targets.* In assessment-focused instruction, we start with an idea of what the students must be able to do at the end of the learning experience. Grant Wiggins and Jay McTighe (1998) have popularized the term "backward design" (146) to describe this important concept in curriculum planning. The criteria should be stated so that they are understandable not only to the instructors but also to the students.

5. *Devise assessment tools.* As mentioned earlier, a range of techniques and instruments might be used including, rubrics, rating scales, checklists, and logs. Whichever tool is used, the criteria must be clearly stated so that both students and instructional teams can apply them to determine levels of achievement.

6. *Collect and analyze the data.* By systematically collecting the data and figuring ways to summarize and analyze the information, we can use the results to drive improvements in learning and teaching. A useful technique is to enter the data on a spreadsheet. This allows us multiple options in terms of formatting, sorting, calculating, and presenting the results.

7. *Communicate the results to different stakeholder groups.* The same assessment data can be packaged and presented in formats appropriate for different stakeholder groups including students, teachers, parents, and administrators. With students and parents, the critical focus is the individual student's progress and accomplishments. Instructional partners need the same student-by-student accounting; at the same time, they also require class profiles of this information. Administrators, however, desire broader summaries where the data might be aggregated by grade levels or by courses.

The following two scenarios illustrate how assessment might be used strategically in an elementary school and a secondary school setting. Both are fictional composites of K-

12 programs that I have worked with in my state. The scenarios are not intended as recipes to be replicated but rather as examples to provoke critical thinking and conversations about possibilities and options in the reader's school setting.

ELEMENTARY SCHOOL SCENARIO

Step 1: Determine school goals and priorities. Forest Haven Elementary is working to improve reading comprehension scores. In the upper elementary grades, the ability to generalize is one of the critical skills being taught. As a team, the fifth grade teachers have incorporated this skill into their short research assignments and enlisted the support of their teacher-librarian, Jim.

Step 2: Determine the library's contribution to the goals. The team members decide on recycling, healthy diets, and local history as the three projects that they will implement at the beginning, middle, and end of the school year. Jim volunteers to create a graphic organizer that students will use to record their generalizations. He agrees to introduce the skill in the first research project and to review it in the subsequent assignments. In turn, the teachers plan to reinforce the skill through the follow-up tasks in their respective classrooms.

Step 3: Identify specific learning targets. The teachers focus on the language arts content standard that deals with using strategies within the reading processes to construct meaning. This standard requires that students be able to identify a theme, generalization or big idea from information they have gathered. They must also be able to infer ideas that are not directly stated using information from the text. Jim links this content standard with the information literacy standard that emphasizes the accurate use of information. To achieve this standard, students must be able to integrate new information with prior knowledge. By matching up the language arts and information literacy standards, Jim and the teachers realize that they are working on complementary targets.

Step 4: Establish criteria to measure student achievement of the learning targets. The teaching partners identify the following criteria for this learning outcome: students are able to (1) state generalizations clearly, (2) identify facts that support the generalization, (3) infer ideas from information in the source, and (4) connect new ideas with prior knowledge.

Step 5: Devise assessment tools. Jim creates a graphic organizer that focuses on the criteria established by the team. The components of the organizer are displayed in Figure 2.

[Figure 2. Graphic organizer for generalizations]

Step 6: Collect and analyze the data. The team also devises a rating scale (Figure 3) to summarize and analyze the students' work on the graphic organizer. Both students and instructors use the same rating scale.

[Figure 3. Rating scale for generalizations]

Step 7: Communicate the results to different stakeholder groups. The data are used for several purposes.

- With students: The students record their work on the graphic organizer and use the rating scale to determine their levels of proficiency. By using these tools to document their learning and assess their progress, the students are able to participate more intelligently in conferences with their instructors. They can thoughtfully and specifically articulate what they are able to do and where they might improve.
- With teachers: Jim knows that the fifth grade teachers want to see the individual student's proficiency level and the specific criteria that each student has met. Therefore, he provides each teacher with a class summary similar to the one in Figure 4.

[Figure 4. Class summary on generalizations]

By analyzing the data, the teachers realize that although students are able to state generalizations, over half of them have problems supporting the generalizations with relevant facts. All of the students are not able to make substantiated inferences. As a result of this analysis, Jim and the teachers modify their approach to include more time for conferencing and more work with small groups. The teachers focus on inferences in their modeling and guided practice while Jim works on helping students support generalizations with facts.

- With parents: Students maintain process folios containing samples of their work for each of the three research assignments. By maintaining the process folios, students deliberately document their learning process. The graphic organizers and the rating sheets are included in the process folios. In three-way conferences that involve the parent, teacher, and student, the pupil assumes the lead in explaining the contents of his or her process folio. In the written introduction to the folios, students identify the teacher-librarian as one of their teachers.
- With administrators: Jim knows that his busy administrator needs collective summaries of students' accomplishments. Therefore, he prepares a report from his spreadsheet data that enables the principal to quickly ascertain the students' improvement across the three assignments (Figure 5).
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[Figure 5. Grade 5 students: Proficiency levels in working with generalizations]

By glancing over the summary, the principal is pleased to note that 90% of the students are at the proficient or expert levels by the third assignment and only 3% of them are at the lowest level.

SECONDARY SCHOOL SCENARIO

Step 1: Determine school goals and priorities. At Beachfront High School, one of the major goals is to integrate technology into teaching and learning. Ninth grade teachers work in disciplinary core teams comprised of social studies, language arts, science, and mathematics. One of the teams decides on a cross-disciplinary project dealing with the coastal erosion problem confronting the community. Eighty students choose to work in small groups to study the issue from the perspectives of the scientist, environmentalist, and historian. They use various technologies to retrieve, calculate, compile, and analyze their data as well as to communicate their findings. They produce multimedia presentations, displays, brochures, and video casts to raise neighborhood consciousness

about the issue and share these products at an environmental awareness fair in their community.

Step 2: Determine the library's contribution to the goals. In this project, students must seek information from government and community agencies through interviews and via the Internet. Sarah, the teacher-librarian, indicates her willingness to help students locate and evaluate web sites for their informational needs. The core team decides that each student must complete at least three web site evaluations.

Step 3: Identify specific learning targets. Sarah and the core team identify the following match between the technology and information literacy standards; these standards form the basis for their learning targets:

- Technology as a research tool: students must be able to evaluate and select information resources based on their appropriateness for specific tasks.
- Information literacy: students must be able to evaluate information using such criteria as accuracy, relevance and credibility of the sources and information in relation to a specific topic or problem.

Step 4: Establish criteria to measure student achievement of the learning targets. Based on their learning targets, the team works with the ninth graders to identify specific criteria for evaluating the web sites. They agree on indicators for content accuracy and relevance, credibility, and ease of use of the web site.

Step 5: Devise assessment tools. With feedback from the teachers and students, Sarah designs a tool for examining web sites (Figure 6). The instructional partners also agree that students must provide evidence supporting their ratings. Students complete this form for each of their three web site evaluations.

[Figure 6. Web site evaluation tool]

Step 6: Collect and analyze the data. Like Jim in the previous scenario, Sarah inputs her data on a spreadsheet. Figure 7 is a partial class summary showing how ten of the students fared on their first web site evaluation. By examining a summary like this one, teachers can see which students are at levels 1 and 2 and need the most assistance. They can also quickly identify the most problematic criterion for the students.

[Figure 7. Partial class summary of web site evaluation]

Step 7: Communicate the results to different stakeholder groups. The compiled data are shared with the following groups.

- With students: The pupils maintain portfolios, which serve as valuable tools to manage and assess learning. With so many instructors involved, the portfolios help the students and teachers to organize assignments and track the students' progress. The web site evaluation sheets are included in the portfolios as work samples. In conferences with the instructors, students use this assessment to identify their areas of strength and the places where they need more assistance.
- With teachers: Summary charts like the one displayed earlier in Figure 7 provide information on each student. Teachers can quickly identify the evaluative criteria that the individual student was able to effectively apply as well as the student's level of proficiency. At the same time, the chart provides them with a broader class or group view

of competency. Based on their analysis of the data, Sarah and the teachers pinpoint criteria that require more modeling and guided practice.

- With parents: During family conferences that are led by the students, the pupils use their portfolios to articulate their learning goals and accomplishments. In these conferences, students refer to their web site evaluations as evidence of how they are critically analyzing online sources of information. Sarah is invited to participate in the conferences. Families also get to see the students' final products at the environmental awareness fair. Since students must cite sources in their presentations, these citations provide further evidence of the actual use of web-related information.

- With administrators: The team prepares a report that summarizes student use of and proficiency with different technology tools. As part of this report, Sarah includes a summary of students' work on web site evaluations. Having used a spreadsheet, she easily converts the data into a visual presentation (Figure 8).

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[Figure 8. Grade 9 students: Proficiency levels in evaluating web sites]

By glancing at the bar graph, the administrators note that the ninth grade students have made substantial progress in evaluating web sites. While only 10% of the students were at levels 3 and 4 in the first evaluation task, over 70% achieved these levels in their third evaluations.

CONCLUSION

Value-added assessment provides critical feedback, stimulates self-assessment, and promotes school wide learning. David Loertscher and Ross Todd (2003) maintain:

At this time in our profession, it is not enough to just say that the library is important. Many school administrators, school boards and parent communities are looking for tangible, documented evidence of the impact of their library on student learning, and use this as a basis for providing more library funding, technology, staffing (20).

This type of value-added practice involves

- Mining the data--collecting and managing pertinent data and information
- Analyzing the data--synthesizing the data to create usable knowledge
- Communicating the results--reporting to support school-wide learning
- Using the results--implementing improvements (Fitzpatrick, 2000)

Delia Neuman (2000) maintains that the Information Literacy Standards for Student Learning (AASL & AECT, 1998) have given teacher-librarians a voice in the larger school reform movement. She emphasizes that this is a voice we cannot afford to forfeit by remaining outside the discussion regarding assessment. I concur with Neuman that this is a challenge we cannot ignore if we are to be an integral part of the school's teaching and learning community. Assessing for student learning must be a central and strategic part of our mission.

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Figure 1. Strategic approach

- Step 1: Determine school goals and priorities.
- Step 2: Determine the library's contribution to the goals.
- Step 3: Identify specific learning targets.
- Step 4: Establish criteria to measure student achievement of the learning targets.
- Step 5: Devise assessment tools.
- Step 6: Collect and analyze the data.
- Step 7: Communicate the results to different stakeholder groups.

Figure 2. Graphic organizer for generalizations

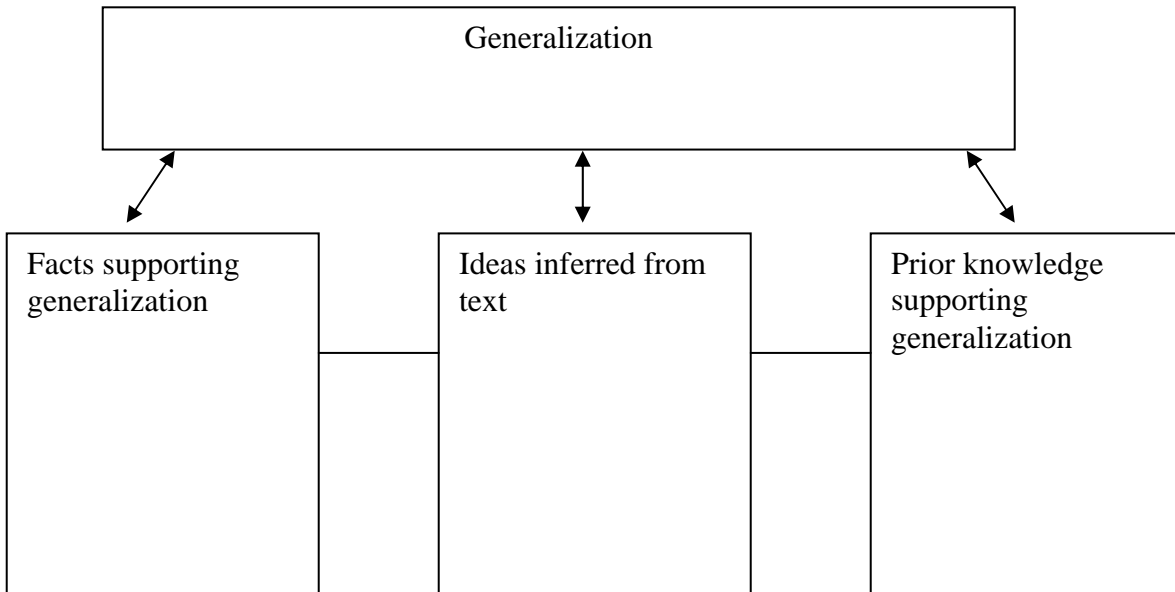


Figure 3. Rating scale for generalizations

Student's name:				
I can . . .	Student Rating		Teacher/Librarian Rating	
	Met	Not yet	Met	Not yet
1. Write a clear generalization.				
2. Give more than one fact that supports this generalization.				
3. Infer something that might not be actually stated but that I can support with facts.				
4. Connect something I already knew to this generalization.				
<p>After conferencing with my instructors, I agree that I am at the following level:</p> <ul style="list-style-type: none"> o EXPERT because I met 4 of the 'I can' statements. o PROFICIENT because I met 3 of the 'I can' statements. o BASIC because I met 2 of the 'I can' statements. o IN PROGRESS because I met 1 of the 'I can' statements. 				

Figure 4. Class summary on generalizations

Mrs. Lee's class				
<p><i>Explanation of code:</i> 1 = Wrote a clear generalization. 2 = Provided more than one fact that supported this generalization. 3 = Made a supported inference. 4 = Connected prior knowledge.</p>				
Student	Expert	Proficient	Basic	In progress
Allen			1, 2	
Anglund				1
Barboza				1
Chee				1
Diamond				1
Farias			1, 2	
Fontes				1
Garfield		1, 2, 4		
Lopez			1, 2	
Lindon			1, 2	
Martin				1
Nomura		1, 2, 4		
Patimkin				1
Ross			1, 2	
Samuels				1
Sato			1, 2	
Santos				1
Thompson				1
Viloria				1
Young			1, 2	
TOTAL (20)	0	2	7	11

Figure 5. Grade 5 students: Proficiency levels in working with generalizations (N=60)

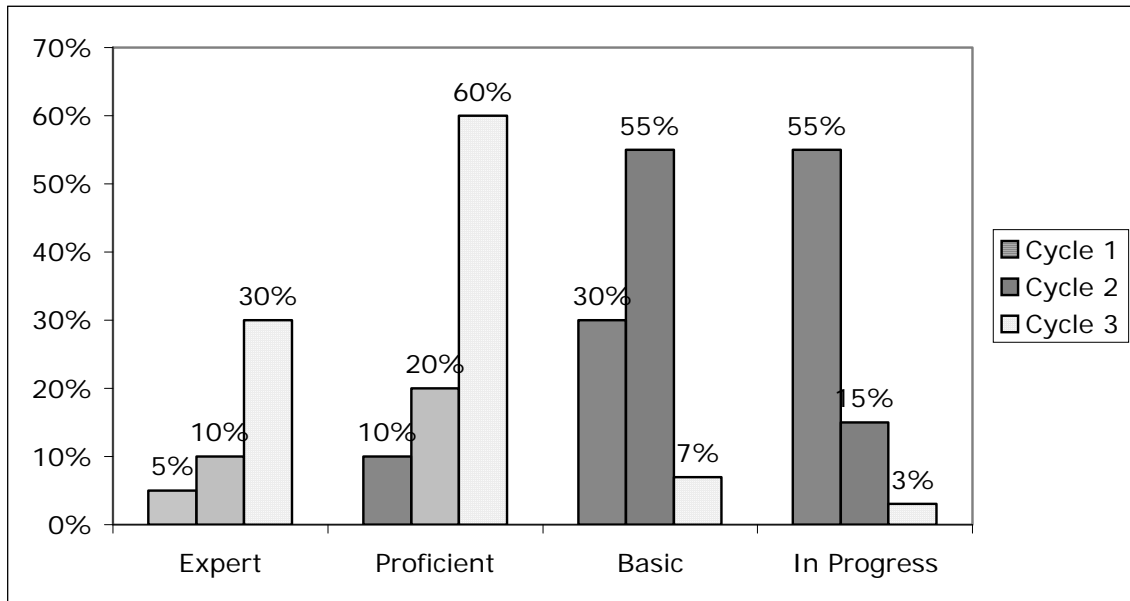


Figure 6. Web site evaluation tool

Name of student: _____		
Name of web site: _____ URL: _____		
Criteria	Yes	No
Criterion 1: Content		
1a. The information relates to my topic and questions.		
<i>Evidence</i>		
1b. The information appears to be accurate.		
<i>Evidence</i>		
1c. The writing is free of bias.		
<i>Evidence</i>		
1d. The information is current.		
<i>Evidence</i>		
Criterion 2: Authority/credibility		
2a. The name of the author or sponsoring organization is stated.		
<i>Evidence</i>		
2b. The author is qualified to speak on the topic.		
<i>Evidence</i>		
Criterion 3: Presentation and ease of use		
3a. Topics, headings, and bullets are used to break up the text.		
<i>Evidence</i>		
3b. Graphics, artwork, and other features enhance the presentation and contribute to understanding.		

Evidence

3c. Two things that make this site easy to navigate are:

1.

2.

After conferring with my instructors, I agree that I am at the following level:

Level 4 = I can accurately evaluate the web site on all of the criteria (content, authority, and presentation).

Level 3 = I can accurately evaluate the web site on 2 of the 3 criteria. Specify the 2 criteria.

Level 2 = I can accurately evaluate the web site on 1 of the 3 criteria. Specify the criterion.

Level 1 = I have problems evaluating the web site on all of the criteria.

Figure 7. Partial class summary of web site evaluation

<p><i>Explanation of code</i> <i>0 = Met none of the criteria</i> <i>1 = Met criterion of content</i> <i>2 = Met criterion of authority</i> <i>3 = Met criterion of presentation</i></p>				
Student	Level 1	Level 2	Level 3	Level 4
Ching	0			
Dawson		3		
Furukawa		3		
Hansen			2,3	
Johnson				1, 2,3
Lee			1,2	
Matthews		2		
Olson	0			
Salud		3		
Wilson		3		

Figure 8. Grade 9 students: Proficiency levels in evaluating web sites (N = 80)

Explanation of levels:

Level 1 = Unable to evaluate web sites on 3 of 3 criteria (content, authority, ease of use)

Level 2 = Able to evaluate web sites on 1 of 3 criteria

Level 3 = Able to evaluate web sites on 2 of 3 criteria

Level 4 = Able to evaluate web sites on 3 of 3 criteria

