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Students' Perceptions of Their Information Literacy Skills in the Media Center

As school library media specialists, we have found many ways to monitor how students use the media center. We count the number of students who walk through the doors, keep log on sheets by the computer stations, and track the subject matter and frequency of assignments. Based on observation alone, it may appear that students feel capable in the media center, especially when it comes to using computers for their informational needs.

But does the seemingly casual confidence we see when students use electronic resources affect our assessment of their information literacy skills? How do students really perceive themselves as information users in the media center? What would they say if they were given the opportunity to evaluate their own information literacy?

For two years, my media specialist team and I took on the job of answering these questions by asking the students themselves. Rather than coming to conclusions based on outward student behavior in our media center, we conducted some research to find out how students view their own information seeking skills. Through our study, we tried to identify any gaps between our



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observations and students' own perceptions, and whether or not our instruction makes a difference.

Project Set-up

Our high school media center serves approximately 3,500 students, and conducting a large study requires the input and assistance of many people. Before we began our investigation, we organized a project team and outlined our goals. Our project team involved the contributions of our four media specialists, as well as our administrative managers. Another key element to the successful completion of our study was the support of our teachers. As a professional goal, we seek out collaborative efforts with teachers to help students with their informational needs. This project proved to be a good example of how such collaboration works.

We knew that a large student population gave us a good cross section of students' abilities to work with information and technology. To measure their understanding and competency of their library skills, we developed our own information literacy rubric. Using a format of surveys and instructional units, our study involved four main steps. First, we asked students to

complete a "pre-test" survey at the start of the school year to identify their perceptions of their skills before they received any media center instruction. The pre-test surveys were followed by instructional units in our media center, after which students would work on their teacher-directed assignments. Finally, the same group of students completed a "post-test" survey to assess any changes in their own views of their information literacy skills.

Year One—The Freshmen

We began year one of our study by gathering opinions from students who were at the beginning of their high school careers. Before we contacted the 800 members of the freshmen class, we told their English teachers about our project and discussed how to incorporate the assessment of specific information literacy skills into their curriculum. With the cooperation of these teachers, we integrated our pre-test survey into freshmen English class instruction.

The pre-test survey asked all freshman English students to critique their abilities before they received any formal instruction from our media center team. This survey enabled us to get an idea of



how confident freshmen felt about their own information gathering skills in five main areas:

- 1. Point Access:** Familiarity with our electronic catalog and how to find materials in the media center;
- 2. Information Skills When Researching a Topic:** Developing questions and keywords, using works cited, and knowledge of copyright and plagiarism;
- 3. Databases:** Performing a successful search on four different online databases and conducting an advanced search using multiple search terms or limiters;
- 4. The Internet:** Using search engines, evaluating Web sites, and choosing the Internet as the first choice for information;
- 5. Technology:** Creating presentations and Web pages and using digital and video cameras.

Within each of these categories, students were presented with statements regarding their abilities and confidence of their skill level for performing various information-related tasks. Students responded by checking one of five boxes next to the statement. If they did not understand the question or task, they could check the option for “Do not understand.” Otherwise, they could rate how often they felt competent at performing a specific task by checking one of the following options: “never,” “sometimes,” “frequently,” or “always.”

The pre-test survey results revealed that the majority of freshmen perceived themselves to be competent in using our media center technologies. However, only about half said they felt fully capable of using our catalog or developing research questions to meet their needs. Less than half felt confident about doing advanced level searches or in locating books from our general collection. Most freshmen expressed little knowledge of our electronic databases.

In that same semester, following the pre-test surveys, we provided instructional sessions for each of the freshmen English classes. We had asked teachers to bring their students for the instructional units prior to assignment of class projects that would involve the media center. Our training could then be individualized according to class lesson plans. Because the students were new to high school and our media center, we focused on basic material to help them formulate a simple search. We also introduced them to our online databases and provided instruction in how to use them.

Within a few weeks after the freshmen completed their teacher-assigned classroom projects, we again arranged for all 800 students to rate their information skills via a post-test survey, which included the same categories as those on the pre-test instrument. We were pleased to find that most students assessed their information literacy skills at a higher level.

“It’s not just the collection of print and non-print resources that influence students’ use of the media center. Instruction by media specialists has a positive impact on students’ perceptions of their information literacy skills.”

For example, on the post-test survey, 64% of freshmen indicated that they frequently or always felt competent in using the electronic card catalog, compared with only 50% who assessed their skills at this level on the pre-test. Following instruction in the media center, 76% reported that they could frequently or always use works cited to give credit to others. This was a 23% increase over the number who felt competent at this skill at the pre-test.

The number of freshmen who expressed a higher competency level in using our databases also increased significantly. According to our post-test results, more than 50%

of freshmen said they frequently or always used one of the four databases for which we had provided instruction. The comparable figure found at pre-test was only 20%.

Year Two—Sophomores

The positive findings of the freshmen surveys motivated us to take on the challenge of studying the same students again in their sophomore year. Because we had roughly the same student population in year two of the study, we used our freshmen information literacy post-test survey results as the foundation of pre-test findings for these students as sophomores.

Again, collaboration with faculty was important, and we teamed with sophomore English teachers to integrate specific information literacy skills into the tenth grade English curriculum. We explained our study to the teachers and asked them to schedule our instruction sessions with their students prior to a classroom project involving media center resources. In year two, we

expanded our instructional units to go beyond simple search strategies and using databases. Instead, the sophomore project focused more on using a research process model, with the hoped-for result of boosting students’ perceptions of their skills as measured by our information literacy rubric.

We dedicated two class periods to each sophomore English class for our media center instruction. Using a sample topic of “roller coasters” as an information search project, began the sophomore units with instruction on pre-search skills such as formulating questions and organizing the search process

according to the nature of the topic. We talked about using multiple sources (print and electronic) and how to evaluate them on a per-project basis. We discussed issues such as reliability and quality of information found on the Internet, and introduced our school's board-adopted information literacy standards.

As visual guidelines for some of these research concepts, we provided various search aids, including our Search Check Sheet, Search Log, Quest for Information outline, and Checklist for Evaluating the Internet. Students could take these handouts back to class, with our suggestion that they continue to use them as information search tools throughout high school. For those who preferred an electronic format, we demonstrated how these worksheets could also be found on our Web site at <www.ccs.k12.in.us/chs/departments/media/index.shtml>.

Because the sophomore instruction was more involved and time-consuming than the freshmen training, the sessions carried over into two semesters. Following our instructional units, all sophomores completed their individual class assignments using the media center resources. We then asked the 800 students to evaluate their skills with a post-test information literacy survey.

The sophomore post-test survey asked questions from the same five main areas covered in the freshmen survey. However, because our instruction to the sophomores went beyond the basics of the freshmen sessions, we expanded the post-test survey to cover some new subjects. For example, we asked sophomores for more input on the value of our Web page and subscription databases.

The post-test survey showed an increase in the sophomores' positive opinions about their informational skills when researching a topic. After instruction, about 75% of sophomores said they frequently or always felt competent in using our

electronic catalog and in their ability to develop questions focusing on research needs. This was an increase of about 18% from the students' pre-test perceptions. The post-test survey also showed an increase in the number of students who could frequently or always locate and use printed materials in the media center. We were also pleased to find that more than 80% of sophomores said they used our Web page as a resource.

Before our study, many teachers had complained that their students jumped directly to the Internet for their information needs. But after our instructional sessions, almost 90% of sophomores said they were able to determine when databases should be their first choice for information, an indication they understood the value of an online resource other than the Internet.

Teachers Benefit Too

As the final step of the sophomore study, we assessed our collaborative efforts with the English teachers by asking them to complete a short questionnaire. In this survey, teachers gave their opinions on their students' understanding of specific media center resources as a result of our training sessions.

From the teachers' comments, we judged our collaborative efforts to be a success. The majority of teachers noted a substantial increase in their students' use and evaluation of books and general encyclopedias. Over half said our instructional units helped their students better understand how to use our Web page, reference databases, and Internet search engines. Other encouraging comments from teachers included:

- "The demonstration of how to research is much more than I could do in the classroom."
- "I noticed more effort and confidence among the students when using books and encyclopedias."
- "The worksheet that helped students formulate research

questions and keywords was especially helpful."

- "I will inquire more about Media Center collections and Internet applicability before determining and approving research papers, topics, or projects."

Conclusions and Future Plans

Our regular responsibilities in the media center continued throughout the two years of our research project. Along with our commitments to the students and teachers involved in our study, we provided professional services in the media center to more than 2,000 other students and their teachers. Not surprisingly then, the most challenging aspect of our study was scheduling time for the instructional units for the 800 students.

These time restrictions became even more pronounced this year due to staffing reductions, and unfortunately, we were not able to continue our study into a third year with the students as juniors. At some point in the future, we want to follow a class for all four years to see if they meet information literacy requirements for high school and beyond.

Overall, any hardships we faced in shortages of staff and time have been greatly outweighed by the most rewarding part of our study—the improvement in students' perceptions of their skills between the pre-test and post-test surveys. As we learned from our research, it's not just the collection of print and non-print resources that influence students' use of the media center. Instruction by media specialists has a positive impact on students' perceptions of their information literacy skills. We make a difference. ■

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