

Student Learning Through Ohio School Libraries

Background, Methodology and Report of Findings

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This document provides an overview of key findings, implications and recommendations of the "Student Learning through Ohio School Libraries" research study. It is a prelude to more detailed and formal reporting of the research to be provided in forthcoming journal literature and a monograph.

Figure 1

Student Learning Through Ohio School Libraries

This study of 39 effective school libraries across Ohio involved 13,123 students in Grades 3 to 12, and 879 faculty. The research study sought to understand how students benefit from school libraries through elaborating "conceptions of help" and providing some measure of the extent of these "helps," as perceived by students and faculty. **The study portrays effective school libraries across Ohio as dynamic agents of student learning and student achievement.**

Effective School Libraries in Ohio are:

Agents of Resources: The school library and librarian provide up-to-date diverse resources to meet curriculum informational needs. The librarian provides instructional interventions to guide students in their information choices through effective, appropriate and considered use of these resources. Access to, and instruction in, the effective use of information technology is an essential component.

Agents of Information Literacy Development: The school library and librarian engage students in an active and meaningful search process contextualized by specific learning tasks, enabling them to explore, formulate and focus their searches, and providing a supportive environment (personal, physical and instructional) for students to be successful in their research. Students understand what good research is about, how to undertake good research, and know that doing good research will result in academic success in research projects and learning the specific content of curriculum areas.

Agents of Knowledge Construction: The school library and librarian develop information literacy scaffolds for engaging information in meaningful ways to enable students to construct and effectively demonstrate new knowledge and understanding. These scaffolds are developed through instructional intervention: systematic, explicit and contextualized instruction at class, group and individual levels targeted to a range of information literacy benchmarks.

Agents of Academic Achievement: The school library and librarian are dynamic agents of learning, helping students to see that they get good grades, particularly on research projects and assignments. Critical to achieving this notion of agent of academic achievement, is a school librarian who is both a suc-

cessful, credentialed educator and a credentialed librarian.

Agents of Independent Reading and Personal Development: The school library plays a role in fostering independent reading, a role clearly stronger in the lower grade levels than in the higher levels. Reading materials targeted beyond informational curriculum needs – personal pursuits, pleasure/leisure reading, and reading for becoming citizens of a democratic world – provide an important foundation. Essential here is the planned development of approaches to promote and encourage reading literacy, academic achievement and the development of independent, lifelong sustained readers.

Agents of Technological Literacy: The school library's role in information technology goes well beyond that of the provision of information technology to access information. It plays an important role in the production of information products through the provision of up-to-date and wide ranging software for manipulation and presentation across multiple medias. Correspondingly, the instructional intervention goes beyond teaching students how to make effective use of this software, but also troubleshooting technical problems – disks, printing, web access, software – and providing for the development of technical problem-solving competencies.

Agents of Rescue: Just-in-time learning is enabled by the library "being there" at crisis points. Students appear to have many information crises – needing resources fast, needing technical solutions to failed technical pursuits, needing solutions to developing their information products. Indeed, even as a rescue agent, the library is opportunistic, responding to multiple needs arising from learning.

Agents of Individualized Learning: The personal touch of a professional school librarian matters a great deal to the students. Personal engagement with students to initiate and enable learning and achievement is a critical component of an effective school library. School librarians who have a clearly defined role as an information-learning specialist and perform in this way play a vital role in enabling students to learn through information.

Background of the Study

The research study, *Student Learning through Ohio School Libraries*, was undertaken from October, 2002 - December, 2003, and was funded by the State Library of Ohio through an \$80,000 Library Services and Technology Act (LSTA) grant from the federal Institute of Museum and Library Services (IMLS) to the Ohio Educational Library Media Association (OELMA). The project was managed by OELMA and the Leadership for School Libraries, a collaboration of the Ohio Department of Education, the State Library of Ohio, OELMA and INFOhio—the state’s K-12 information network. Project Director was Ann E. Tepe, and Assistant Project Director was Gayle A. Geitgey. Researchers for the project were Dr. Ross J. Todd and Dr. Carol C. Kuhlthau from the Center for International Scholarship in School Libraries (CISSL) and the School of Communication, Information and Library Studies at Rutgers, the State University of New Jersey.

Student Learning Through Ohio School Libraries has its foundation in a long tradition of scholarly investigation that has sought to understand and demonstrate the impact of school libraries on student achievement. This tradition, stemming from the early student-centered research and learning advocacy of Mary Virginia Gaver, who published *Every Child Needs a School Library* in 1958, has in recent years been made eminently prominent by Dr. Keith Curry Lance and colleagues with a series of state-wide studies of school libraries including Colorado, Alaska, Pennsylvania, New Mexico, Oregon, Massachusetts, Iowa, Michigan, North Carolina, Florida and Texas. While there are individual differences in each of these studies involving 3000 schools with school libraries serving over three million students, the findings show that library predictors of academic achievement, as measured by a range of standardized test scores, include:

- adequate and appropriately credentialed staff and support staff
- school librarians’ involvement in collaborative learning and instructional design centering on information literacy
- developing print and digital collections and identifying resources for classroom teachers
- motivating students to read
- administering a curriculum-centered library program
- facilitating access through responsive school library hours, flexible scheduling, and information technology (for catalogs, databases and World Wide Web)

These are important and challenging findings, celebrating the significant role that an effective school library plays in student achievement, and providing clear basis for the development of institutional guidelines and frameworks for establishing effective school library programs.

The Research Focus of *Student Learning Through Ohio School Libraries*

While there is clear and predictive evidence that suggests that effective school libraries have a positive impact on standardized test scores, there have been no state-wide studies undertaken to date which examine the multi-dimensional dynamics of student learning that goes beyond student achievement in standardized test scores, and how these dynamics are enabled through the school library. Such studies are timely, particularly in the legislative climate of “No Child Left Behind.” An increasing focus in Ohio on standards-based education, accountability, performance excellence and school improvement provided the impetus to build on the existing findings and to focus on student learning beyond standardized test score achievement.

This research sought to identify more specifically how students benefit from school libraries through elaborating “conceptions of help” and providing a measure of these “helps” as perceived by students. On the basis of this insight, the study sought to provide recommendations for:

- professional practice
- educational policy development
- further research
- tools for school librarians to chart how their school libraries impact learning.

This research sought to collect data from the students themselves, and represents a key difference to the major state-wide studies to date which have collected data through school staff input. In planning the particular focus and approach to data collection, the project team also sought to focus on evidence-based practice:

- to provide statewide data on best practices and promising practices in school librarianship;
- to provide a framework for dialog among parent communities, school boards, administrators, school librarians, and teachers on the value of effective school libraries with credentialed school librarians;
- to further encourage continuous improvement in effective library services which support academic content;
- to identify professional development opportunities for continuing to develop effective school library programs.

Research Methodology

In seeking to understand the different views or “conceptions of helps” of a school library and to measure the extent of these perceived “helps,” the study was grounded in best practice. The “help” construct has a long scholarly tradition in the study of people’s information seeking and use behavior. One particular study, developed by Brenda Dervin, a distinguished communications scholar at Ohio State University, posits a sense-making triangle of situation-gap-helps as a basis for developing a strong user-centered approach to understanding the information behaviors of people.

Thirty-nine schools across Ohio participated in this study, and were selected on the basis of providing an “effective school library program.” The criteria for selection centered on meeting a series of national and international guidelines for school libraries based on building-level presence of credentialed staff, curriculum-centeredness, adequate, appropriate and diverse resources, information technology infrastructure for accessing and using information in various media and formats, information literacy instruction and reading enrichment programs. These criteria form the basis of *Ohio Guidelines for Effective School Library Media Programs* through the Ohio Department of Education’s Office of Curriculum and Instruction. The documentation is available at http://www.ode.state.oh.us/Curriculum-Assessment/school_library/

These Guidelines represent a standards-based education approach to school library programs aligned to academic content standards, assessments, resources, and professional development. A nine member International Advisory Panel that comprised distinguished scholars and professional leaders in school librarianship around the world validated these criteria. This panel provided critical review, assessment and feedback on the effectiveness criteria and their indicators. Schools were then invited to nominate (either self or other) for selection in the research study, and to provide substantive documentation in addressing the criteria. (see <http://www.oelma.org/studentlearning.htm> for the criteria) Employing a judgment sampling process, an Ohio Experts Panel was constituted to make the selection of participating schools. Judgment sampling is a common and widely accepted non-probability method of selecting the sample, particularly when extensive quantitative or objective data are not available to make the judgments. The Ohio Experts Panel consisted of eleven leaders from the school library and educational community in Ohio who were deemed to have in-depth knowledge of a range of school libraries across Ohio, and who could pool their knowledge of the local field with the documentation provided by the schools to make a considered and careful selection. Following analysis of all documentation, the Ohio Experts Panel met and deliberated to make the sample selection. The Panel also made recommendations to include additional schools not nominated, and these were followed up with an invitation to provide the appropriate documentation, which then was examined by the Panel.

Data were collected through two survey instruments available through a secure online server on the World Wide Web (based at Rutgers University) for the participating schools. The *Impacts on Learning Survey* was available for students from Grade 3 to Grade 12 to identify, from their perspective, how the library has helped them in their learning. The survey consisted of 48 statements of “helps,” including statements derived from the Information Literacy Standards for Student Learning as elaborated in *Information Power: Building Partnerships for Learning* (Chicago: ALA, 1998), as well as derived from findings drawn from an

extensive selection of school library research literature. In essence, the 48 statements of help took a broad conception of learning, seeking to identify some of the breadth and depth of how an effective school library program makes a difference to the lives of the students. These statements are identified in the findings section of this report. The study also provided an open-ended, critical incident question (based on Flanagan 1956) to enable students to articulate specific instances of “helps” and their outcomes, in their own voice. This free writing question asked: *Now, remember one time when the school library really helped you. Write about the help that you got, and what you were able to do because of it.* This question was included for two reasons. First, given the largely quantitative nature of the survey, the study wanted to provide opportunity for students to give witness, if possible, in their own way to the statements provided about the relationship between the school library and student achievement. In this respect, the statements clearly served to prompt the students in identifying concrete examples of the “help” provided by the school library to them and to be able to represent them in their own voice. Second, the concrete expressions of help served to identify “conceptions of help” and their outcomes not identified in the 48 statements.

A second survey instrument, known as *Perceptions of Learning Impacts Survey* was made available to faculty in the selected schools including the school librarians, teachers, principals, assistant principals, superintendents, and information technology specialists. This survey used the same 48 statements provided to the students, with change in “person” (from “me” in the student instrument to “students” in the faculty instrument). The survey also provided an open-ended question that sought to identify the evidence base for supporting the points made by the faculty in relation to how they perceived the school library has helped their students. The two surveys and their quantitative and qualitative data provide an opportunity to triangulate multiple sources of data in an endeavor to build some coherent picture of the nature and extent of “helps” provided by the school library in relation to student learning and achievement.

Student Demographics

The data analysis and subsequent reporting of findings and conclusions is based on a data set of 13,123 valid responses, drawn from 39 schools across Ohio, and collected from 27th April to 30th June 2003, (out of a total of 13,328 records received). 10,316 valid statements in response to the critical incidence question were collected. Data analysis was undertaken using SPSS (“Statistical Package for the Social Sciences”) Version 10.0 for Windows. 6,294 boys (48% of sample) and 6,702 girls (51.1% of sample) participated in the study. 127 respondents did not signify their gender. The difference in proportions is significant, [$\chi^2(1, N = 12296) = 12.809, p < .001$].

The age of students ranged from age 7 (2 students) to age 20 (1 student) with an average age of 14.18 years. The majority of students were from 12 to 18 years of age. 60 students did not designate age. The difference of the numbers of students between each age group is significant. The numbers of students in age 7, 8, 9, 10, 19, 20 are significantly lower than the average (which is approximately 933).

The numbers of students in age 12, 13, 14, 15, 16, 17, 18, 19 are significantly higher than the average. The numbers of students in age 11 is near the average. [(13, N = 13063) = 6162.659, $p < .001$]. Students were from Grade 3 through Grade 12. Grades 9, 11 and 12 provided the highest number of respondents. Grades 3, 4, and 5 provided the lowest number of respondents. 16 respondents did not designate grade. The difference of the numbers of students between each grade is significant. The numbers of students in grade 3, 4, 5 are significantly lower than the average (which is approximately 1311). The numbers of students in grade 7-12 are significantly higher than the average. The number of students in grade 6 is near the average. [(9, N = 13107) = 1312.197, $p < .001$].

The students were primarily White (78.5% of sample), with smaller groups of African-Americans (5.5%) and of mixed race (4.1%). The difference of the numbers of students between each ethnic group is significant. The numbers of African-American, Asian, Hispanic, Mixed Race, Native American and Other groups are significantly lower the average (which is approximately 1799). The number of Whites is significantly higher than the average. [(6, N = 13123) = 47094.65, $p < .001$].

62% of the students came from schools with a Report Card Performance Category of "excellent," 22.9% from "effective" schools; 12.8% from "Continuous Improvement" schools, and 2.3% from "Academic Watch" schools. All school libraries across these report card categories were deemed to be effective as determined by the validation criteria. At the time of the study, Ohio Department of Education report card ratings were assigned at the district level. Individual schools in a district could exceed the rating.

80.9% of the students came from urban/suburban districts. 9.8% came from rural areas, 7% from small cities, and 2.3% from large cities. The numbers of students in schools in Rural, Small City and Large City are significantly lower than the average (which is approximately 3281). The number of students in schools in Urban/Suburban is significantly higher than the average.

DOCUMENT 1 (1 pg.)

Additional Features of the Student Sample





Available at <http://www.oelma.org/SLFindings.html>

Findings
Analysis of 48 Statements

The central feature of the survey was soliciting students' perceptions of the extent to which the school library has helped them at school and at home through a Likert response to 48 statements of help. No data are available on response times as this was not tracked. No names appeared on the survey, and for the purposes of analysis, once data were cleaned up, all school identification numbers (School IRN and unique number assigned by the school) were removed. This was done to ensure the highest level of anonymity in the responses and reporting of data. Also, it was made clear to participating schools that this study would not be generating individual school reports as its purpose was to present a cumulative picture of the collective sample as a whole, representing different school types in different geographical locations across Ohio.

For each statement in the survey, students were asked to reflect on the statement and click the box that matched best how much they thought the school library has helped them. The following guidelines were provided in the survey to guide students in working out their response:

Figure 2

	= most helpful (you think you got a great amount of help)
	= quite helpful (you think you got a good amount of help)
	= some help (the help you got was OK, so so)
	= a little help (you think you got just a bit of help)
If you do not know an answer, or if something does not apply to you, click the box "Does not apply."	

In planning the study, the project team gave considerable thought to the use of the category "No Help" versus "Does not apply." This study was not intended to be a study of how school libraries do not help, rather to focus on best practice and to understand much more richly how effective school libraries do help students by identifying and elaborating the "helps" construct. Based on current research findings, the study sought to address the question: if effective school libraries impact positively on test scores, what is the impact on other dimensions of student learning? In elucidating constructs of "help" and gauging some picture of the extent to which these apply to students, it is then possible to undertake more meaningful, comparative studies in terms of established dimensions that matter to students,

identifying issues to do with not helping, as well as developing approaches to improving these, and developing benchmarking strategies to enable all school libraries to move to positions of learning excellence.

Statistically, 99.44% of the sample (13,050 students) indicated that the school library and its services, including roles of school librarians, have helped them in some way, regardless of how much, with their learning in and out of school as it relates to the 48 statements. Only 73 students out of 13,123 indicated that none of the 48 statements applied to them. This is 0.56% of the total sample. 25.54% of the sample (3,352 students) said that the library has helped them, regardless of how much, with their learning on all 48 statements. 60.3 % of the sample (7,914 students) said that the school library has helped them in some way, regardless of how much, on at least 43 of the statements. This would indicate that the school library plays a major and obvious role in helping students with their learning in and out of school. One Grade 8 boy poignantly expressed this:

I'm in Grade 8. I don't get it. Why do I need to do this survey? Isn't it obvious to everyone that we have to have our school library to do all our school work? It's impossible to do it without it, that's for sure.

A Grade 11 girl similarly expressed his sentiments:

We all know that school libraries help students. Why must we have a survey about it? All schools need libraries, so let's not worry about the surveys.

And found in comments such as this Grade 11 boy:

I do most of my school work at home, and not at school, but I do use the school library quite often when we need hard book references for things such as reports and Hyperstudio projects. Thank you for taking the time to read the answers to my survey, whoever you are. Your time, patience, and effort is greatly appreciated as we need good libraries.

And this Grade 8 girl:

The school library has helped me with school reports. It has helped me with find things I am interested in. it has also helped me find books that I never thought I would like. We middle schoolers are the future generation and will do great things and we can't do those things if we don't have a library to learn things from. We learn through books and get ideas from other inventions and we can't do these things without books to read the information from.

The library is clearly and unequivocally helpful to students in Ohio, and this seems intuitively obvious to students.

How does the school library help students, and to what extent?

48 statements of the school library's relationship to student learning were presented to the students for their judgment. These were grouped into seven conceptual categories (blocks):

1. How helpful the school library is with getting information you need.
2. How helpful the school library is with using the information to complete your school work.
3. How helpful the school library is with your school work in general.
4. How helpful the school library is with using computers in the library, at school, and at home.
5. How helpful the school library is to you with your general reading interests.
6. How helpful the school library is to you when you are not at school.
7. General school aspects – these relate to Academic Achievement.

Based on both the quantitative and qualitative data collected, the following commentary is provided to highlight key findings in each of the seven categories (blocks). The related web link provides an illustrative selection of student comments derived from their critical incident responses.

DOCUMENT 2 (40 pgs.)

Sample of Student Qualitative Responses for Each Block

Available at <http://www.oelma.org/SLFindings.html>

1. How helpful the school library is with getting information you need.

The school library plays a strong role in the process of finding and using information: steps students equate with doing library-based “research” — a staged process of accessing, searching, locating, connecting with and engaging with information. (Only 3.2% of sample indicated that this does not apply to them). The school library, particularly the initiating intervention of the school librarian, engages students in an information needs/questioning process that enables students to start their research, focus their searches, get input on the scope of their projects, identify information needs, understand the nature of the task and provide resource pathways.

The school library facilitates students in finding appropriate resources across diverse formats (both print and electronic), and developing some of the information scaffolds necessary for students to do this on their own (such as using catalogs, the Dewey Decimal system and accessing online databases). 95.1% of students indicated help in this regard. Further, the school library plays an important role in helping

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The following table shows the 48 statements, the Likert measurement, and the percentage distribution of responses for all statements.

Table 1

Student Survey Statements by Blocks:		Percentage of Responses				
		Most helpful	Quite helpful	Some help	A Little help	Does not apply
Block 1. How helpful the school library is with getting information you need.						
11.	The school library has helped me know the different steps in finding and using information.	25.7	38.7	22.3	10.1	3.2
12.	The information in the school library has helped me work out the questions for the topics I am working on.	27.2	37.5	21.3	9.9	4.1
13.	The school library has helped me find different sources of information (such as books, magazines, CDs, websites, videos) for my topics.	34.0	30.2	19.3	11.6	4.9
14.	The school library has helped me know when I find good information.	19.9	29.1	26.0	17.9	7.2
15.	The school library has helped me find different opinions about my topics.	19.2	28.8	25.8	17.2	9.1
16.	The school library has helped me feel better about finding information.	21.9	28.2	23.2	17.4	9.4
17.	The school library has helped me feel good about asking for assistance when I go there.	28.8	25.2	18.8	17.9	9.3
Block 2. How helpful the school library is with using the information to complete your school work.						
21.	The school library has helped me know how to use the different kinds of information sources (such as books, magazine, CDs, websites, videos).	31.5	30.4	19.5	12.4	6.3
22.	The school library has helped me work out the main ideas in the information I find.	17.7	31.9	25.6	16.9	7.9
23.	The school library has helped me get better at taking notes.	12.8	16.6	20.7	27.8	22.1
24.	The school library has helped me put all the ideas together for my topics.	14.7	23.9	24.9	23.1	13.4
25.	The school library has helped me put ideas in my own words.	13.4	20.2	22.5	26.0	17.9
26.	The school library has helped me think about how I should go about finding information next time.	24.9	29.7	22.5	15.4	7.6
27.	The school library has helped me know that research takes a lot of work.	32.3	25.9	18.5	14.3	9.0
28.	The information I have found in the school library has helped me become more interested in my topics.	23.1	25.6	22.1	18.4	10.8
Block 3. How helpful the school library is with your school work in general.						
31.	The school library has helped me remember my school work.	11.7	18.8	19.0	22.9	27.6
32.	Two of the classes where I have remembered more school work are:					
33.	The school library has helped me get the first facts about my topics.	23.4	30.3	22.1	16.3	7.9
34.	The school library has helped me learn more facts about my topics.	31.3	31.4	19.8	11.7	5.7
35.	The school library has helped me when I do not understand some things.	21.5	26.9	23.8	17.8	10.0
36.	The school library has helped me figure out if my own ideas are good or bad.	12.5	20.9	23.1	23.9	19.6
37.	The school library has helped me change my mind about some things I thought I knew.	17.2	23.6	23.5	20.5	15.1
38.	The school library has helped me figure out my own opinions on things.	15.1	21.5	22.3	22.5	18.6
39.	The school library has helped me connect different ideas I already have.	16.5	24.3	24.0	20.4	14.8
3A.	The school library has helped me talk more in class discussions.	13.4	15.5	17.8	26.5	26.9
Block 4. How helpful the school library is with using computers in the library, at school, and at home.						
41.	Computers in the school library have helped me do my school work better.	41.6	24.0	14.3	12.5	7.6
42.	The school library has gotten me more interested in computers.	24.9	20.5	18.2	20.2	16.1
43.	Computers have helped me find information inside and outside of the school library.	49.0	21.4	13.8	10.1	5.7
44.	The school library has helped me search the Internet better.	33.2	23.0	16.9	16.5	10.4
45.	The school library has helped me be more careful about information I find on the Internet.	24.8	22.7	18.9	19.2	14.3
46.	Computer programs (like PowerPoint, Word, and Excel) in the school library help me do my school work.	39.7	20.8	14.3	12.7	12.5
47.	The school library has helped me feel better about using computers to do my school work.	29.5	22.3	17.0	17.0	14.2
Block 5. How helpful the school library is to you with your general reading interests.						
51.	The school library has helped me find stories I like.	29.3	19.4	17.2	18.7	15.5
52.	The school library has helped me read more.	20.9	17.0	17.2	24.3	20.6

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Table 1

...Continued from page 6

53.	The school library has helped me get better at reading.	18.2	15.2	15.8	25.2	25.6
54.	The school library has helped me enjoy reading more.	20.9	14.0	16.3	25.5	23.3
55.	The school library has helped me be a better writer.	15.5	16.9	17.9	24.7	25.1
Block 6. How helpful the school library is to you when you are not at school.						
61.	The school library has helped me discover interesting topics other than my school work.	22.6	21.4	17.1	17.6	21.3
62.	Some of these topics are ...					
63.	The things I've learned in the school library help me study at home.	16.6	21.7	21.4	22.8	17.5
64.	The school library has helped me get more organized with my homework.	12.4	17.7	19.5	25.1	25.3
65.	The school library has helped me find information even when I am not at school.	19.3	18.4	17.6	21.8	22.8
66.	The school library lessons have helped me solve problems better.	13.3	17.4	20.2	24.5	24.6
67.	The school library has helped me when I have a personal concern or issue.	10.2	12.1	13.8	24.4	39.6
68.	Information in the school library has helped me decide what I need to do	15.7	17.8	20.6	24.1	21.8
Block 7. Now, some general things (ACADEMIC ACHIEVEMENT)		Most helpful	Quite helpful	Some help	A Little help	Does not apply
71.	The school library has helped me do my school work better.	21.5	21.7	21.1	20.4	15.3
72.	The school library has helped me get better grades on my projects and assignments.	26.1	26.4	19.5	16.5	11.5
73.	The school library has helped me get better grades on tests and quizzes.	13.5	17.2	20.0	24.8	24.6
74.	The school library has helped me think harder about my school work.	14.8	18.0	20.0	24.7	22.6
75.	The school library has helped me feel more confident about doing my school work.	17.3	17.7	18.4	23.2	23.4

The following table shows the percentage of the sample that indicated that the school library helped them, either in terms of Most Helpful, Quite Helpful, Some help, or a Little Help, ranked from highest to lowest percentages.

Table 2

Student Survey Statement by Rank Order of Help: Percentage of Responses		
Q11:	The school library has helped me know the different steps in finding and using information.	96.84%
Q12:	The information in the school library has helped me work out the questions for the topics I am working on.	95.95%
Q13:	The school library has helped me find different sources of information (such as books, magazines, CDs, websites, videos) for my topics.	95.10%
Q43:	Computers have helped me find information inside and outside of the school library.	94.35%
Q34:	The school library has helped me learn more facts about my topics.	94.27%
Q21:	The school library has helped me know how to use the different kinds of sources (such as books, magazines, CDs, websites, videos).	93.74%
Q14:	The school library has helped me know when I find good information.	92.81%
Q41:	Computers in the school library have helped me do my school work better.	92.41%
Q26:	The school library has helped me think about how I should go about finding information next time.	92.36%
Q22:	The school library has helped me work out the main ideas in the information I find.	92.07%
Q33:	The school library has helped me get the first facts about my topics.	92.05%
Q27:	The school library has helped me know that research takes a lot of work.	91.05%
Q15:	The school library has helped me find different opinions about my topics.	90.94%
Q17:	The school library has helped me feel better about asking for assistance when I go there.	90.73%
Q16:	The school library has helped me feel better about finding information.	90.58%
Q35:	The school library has helped me when I do not understand some things.	90.02%
Q44:	The school library has helped me search the Internet better.	89.63%
Q28:	The information I have found in the school library has helped me become more interested in my topics.	89.21%
Q72:	The school library has helped me get better grades on my projects and assignments.	88.51%
Q46:	Computer programs (like PowerPoint, Word, and Excel) in the school library have helped me do my school work.	87.53%
Q24:	The school library has helped me put all the ideas together for my topics.	86.65%
Q47:	The school library has helped me feel better about using computers to do my school work.	85.84%
Q45:	The school library has helped me be more careful about information I find on the Internet.	85.72%
Q39:	The school library has helped me connect different ideas I already have.	85.16%
Q37:	The school library has helped me change my mind about some things I thought I knew.	84.87%
Q71:	The school library has helped me do my school work better.	84.65%
Q51:	The school library has helped me find stories I like.	84.53%
Q42:	The school library has got me more interested in computers.	83.88%
Q63:	The things I've learned in the school library have helped me study at home.	82.51%

Continued on page 8...

Table 2

...Continued from page 8

Student Survey Statement by Rank Order of Help: Percentage of Responses	
Q25: The school library has helped me put ideas in my own words.	82.11%
Q38: The school library has helped me figure out my own opinions on things.	81.37%
Q36: The school library has helped me figure out if my own ideas are good or bad.	80.37%
Q52: The school library has helped me read more.	79.37%
Q61: The school library has helped me discover interesting topics other than my school work.	78.68%
Q68: Information in the school library has helped me decide what I need to do next with my school work.	78.19%
Q23: The school library has helped me get better at taking notes.	77.89%
Q74: The school library has made me think harder about my school work.	77.41%
Q65: The school library has helped me find information even when I am not at school.	77.17%
Q54: The school library has helped me enjoy reading more.	76.71%
Q75: The school library has helped me more feel confident about doing my school work.	76.56%
Q73: The school library has helped me get better grades on tests and quizzes.	75.41%
Q66: The school library lessons have helped me solve problems better.	75.39%
Q56: The school library has helped me be a better writer.	74.90%
Q64: The school library has helped me get more organized with my homework.	74.71%
Q53: The school library has helped me get better at reading.	74.42%
Q3A: The school library has helped me talk more in class discussions.	73.15%
Q31: The school library has helped me remember my school work.	72.42%
Q67: The school library has helped me when I have a personal concern or issue.	60.42%

The following table shows the rank order of statements and corresponding percentage of the sample that indicated that the school library was Most Helpful.

Table 3

Student Survey Statement by Rank Order of Most Helpful: Percentage of Responses	
Q43: Computers have helped me find information inside and outside of the school library.	49.01%
Q41: Computers in the school library have helped me do my school work better.	41.58%
Q46: Computer programs (like PowerPoint, Word, and Excel) in the school library have helped me do my school work.	39.67%
Q13: The school library has helped me find different sources of information (such as books, magazines, CDs, websites, videos) for my topics.	34.02%
Q44: The school library has helped me search the Internet better.	33.18%
Q27: The school library has helped me know that research takes a lot of work.	32.26%
Q21: The school library has helped me know how to use the different kinds of sources (such as books, magazines, CDs, websites, videos).	31.51%
Q34: The school library has helped me learn more facts about my topics.	31.33%
Q47: The school library has helped me feel better about using computers to do my school work.	29.49%
Q51: The school library has helped me find stories I like.	29.35%
Q17: The school library has helped me feel better about asking for assistance when I go there.	28.79%
Q12: The information in the school library has helped me work out the questions for the topics I am working on.	27.21%
Q72: The school library has helped me get better grades on my projects and assignments.	26.10%
Q11: The school library has helped me know the different steps in finding and using information.	25.75%
Q42: The school library has got me more interested in computers.	24.92%
Q26: The school library has helped me think about how I should go about finding information next time.	24.86%
Q45: The school library has helped me be more careful about information I find on the Internet.	24.80%
Q33: The school library has helped me get the first facts about my topics.	23.39%
Q28: The information I have found in the school library has helped me become more interested in my topics.	23.13%
Q61: The school library has helped me discover interesting topics other than my school work.	22.63%
Q16: The school library has helped me feel better about finding information.	21.85%
Q35: The school library has helped me when I do not understand some things.	21.48%
Q71: The school library has helped me do my school work better.	21.47%
Q52: The school library has helped me read more.	20.93%
Q54: The school library has helped me enjoy reading more.	20.86%
Q14: The school library has helped me know when I find good information.	19.86%
Q65: The school library has helped me find information even when I am not at school.	19.35%
Q15: The school library has helped me find different opinions about my topics.	19.18%

Continued on page 9...

Table 3

...Continued from page 8

Q53:	The school library has helped me get better at reading.	18.17%
Q22:	The school library has helped me work out the main ideas in the information I find.	17.69%
Q75:	The school library has helped me more feel confident about doing my school work.	17.31%
Q37:	The school library has helped me change my mind about some things I thought I knew.	17.21%
Q63:	The things I've learned in the school library have helped me study at home.	16.61%
Q39:	The school library has helped me connect different ideas I already have.	16.47%
Q68:	Information in the school library has helped me decide what I need to do next with my school work.	15.69%
Q56:	The school library has helped me be a better writer.	15.46%
Q38:	The school library has helped me figure out my own opinions on things.	15.10%
Q74:	The school library has made me think harder about my school work.	14.75%
Q24:	The school library has helped me put all the ideas together for my topics.	14.68%
Q73:	The school library has helped me get better grades on tests and quizzes.	13.49%
Q25:	The school library has helped me put ideas in my own words.	13.42%
Q3A:	The school library has helped me talk more in class discussions.	13.37%
Q66:	The school library lessons have helped me solve problems better.	13.31%
Q23:	The school library has helped me get better at taking notes.	12.82%
Q36:	The school library has helped me figure out if my own ideas are good or bad.	12.50%
Q64:	The school library has helped me get more organized with my homework.	12.39%
Q31:	The school library has helped me remember my school work.	11.72%
Q67:	The school library has helped me when I have a personal concern or issue.	10.15%

Table 4

Mean Scores of Each Block				
BLOCK	NUMBER	MEAN	STANDARD DEVIATION	RANK OF MEAN FROM HIGHEST TO LOWEST
1	13123	2.535	.895	1 (GETTING INFO)
2	13123	2.251	.971	3 (USING INFO)
3	13123	2.070	.999	4 (KNOWLEDGE)
4	13123	2.529	1.042	2 (COMPUTERS)
5	13123	1.907	1.242	6 (READING)
6	13123	1.772	1.100	7 (INDEPENDENT)
7	13123	1.966	1.179	5 (ACHIEVEMENT)
Valid	13123			

students determine the quality of information, particularly with the availability of information, misinformation and disinformation on the Internet. 92.8% of students indicated help in this aspect. Students' statements identify and value the role of school librarians' instruction (individual or class) in developing this capacity to judge quality, appropriate information.

By providing diverse resources and instruction in the use of multiple formats, the school library helps students access a variety of viewpoints on an issue, phenomena or event, and to enable them to construct their own viewpoint. This embraces understanding different views, identifying different arguments/cases, and dealing with conflicting viewpoints. The outcome is not just provoking thinking about an issue, but developing a balanced view and formulating personal standpoints and positions. (Only 9.1% of sample indicated that this does not apply to them.) Through its instructional intervention at class and individual

levels, the school library addresses some of the affective negative dimensions of accessing and finding information. Undertaking research tasks is often accompanied by frustration, anxiety and stress, and intervention here contributes to feeling more comfortable, less stressed and more content with the search process. The majority of the students appear to be willing to ask for help with their information needs and value the role of this assistance, both in terms of the affective as well as cognitive dimensions of their research tasks. They get encouragement, direction, self-assurance and resource help.

2. How helpful the school library is with using the information to complete your school work.

This block focuses on the cognitive and meta-cognitive dimensions of engaging with and using information. School library research and learning research indicates that in the process of constructing new knowledge and understandings

through engaging with information, students need to know how to use a range of different sources and formats of information, be able to analyze ideas, determine the important ones, and then to put these ideas together in a coherent and meaningful way that enables them to state the new knowledge they have learned. Learning research tells us that this is no mere superficial feat, that it takes effort and time. The data of this study show that the school library considerably helps students know how to use the different information sources, and the different purposes of these sources in the research process. The students, both in terms of managing projects to completion, and accessing quality information, value this instructional intervention. Research indicates that sorting through a plethora and often conflicting set of ideas imposes heavy cognitive demands on students, and inability to undertake this contributes to plagiarism. Students in this study strongly support the statement that the school library helps them work out the main ideas in the information they find. This was often developed in the library through instructional intervention – classes that taught them how to identify main ideas, take notes, sort and organize ideas.

For some students, the school library plays a role in helping students get better at taking notes. While this item was ranked lower than other dimensions of help, this is perceived to be helpful in schools where this is actively taught as part of library classes as a research strategy. Similarly, where there appears to be a pattern of explicit and systematic instruction, students express benefit in learning how to analyze and synthesize information, to express ideas in their own words, and to develop responsibility with information use.

The school library clearly helps in development of students as reflective thinkers with finding information, and encouraging them to learn from their information search experiences. Only 7.6% of the students indicated that this did not apply to them, with more than half of the students indicating that this was quite or most helpful to them. The student comments indicate that this help was transferred to other search tasks, developing independence and ease with information seeking. Students strongly endorsed that the school library has helped them know that research takes a lot of work, and appear to value the outcome of working hard. They offered examples such as success in presentations, good grades on research projects, and feeling satisfied with the finished product. Only 9% of students said that this did not apply to them.

3. How helpful the school library is with your school work in general.

The school library clearly plays a strong role in helping students get the first facts for their topics. 92.05% of the sample said that the school library helped them in this aspect of their school work. The importance of this dimension of building knowledge and understanding of a

new topic cannot be underestimated. Typically students begin a research task or project as a novice in the particular knowledge domain, and are required through the research project to construct some output that represents their knowledge of the topic – that is, they move from a novice level to a level of some demonstrated expertise with the topic. Getting started in the information gathering process, getting a foothold and getting focused on the topic requires developing a foundation of “first facts.” Students’ comments attest to the importance of this foundation, particularly when “you know nothing” in terms of being able to find a starting point for the project, get involved in the project, research better, develop the detail, and achieve a good grade.

While it might be stating the obvious that the information provision base of the library is its fundamental mandate, 94.27% of the students indicated that the library helped them to some extent through providing the information base out of which they construct their projects and assignments. Students make further connections beyond the notion of supply by articulating outcomes such as learning more and interesting things about the topic, progressing with their research, getting good grades, and discovering new information.

Ninety percent of the students indicated that the school library helps them when they do not understand some things. Almost half of the students indicated that this was quite or most helpful. This suggests that the presence of a school library in a school and its services goes beyond an information base, to that of one of enabling students to build their understanding, and to sort out misunderstandings or confusions that they might have. What is strong in the students’ comments is the personal intervention of the school librarian and providing an environment in the school library that encourages students to seek explanations or to ask for help when they do not understand aspects of their topics. This helps them to figure out if their own ideas are good or bad. The library, in providing access to a diverse range of opinions and viewpoints on topics, provides a critical point for students to test and work out the validity of their own ideas. 80.4% said that the school library helped them in this regard. 84.9% of the students said that the school library helps them, on the presentation of facts and viewpoints, to correct some of their erroneous ideas, or to change their opinion about things. The school library does play a role in moving students from being misinformed to being informed. The students’ comments indicate that the library is important in shaping and changing their mind on issues that matter to them — lifestyle choices (such as diet), social, personal and political issues (gun control, capital punishment, smoking, racial prejudices). In this sense, the library’s role appears to go beyond the provision of ideas — *informational* — to one of *formational*. It plays a strong role in the development of personal viewpoints through access to a diverse range of ideas, and

fostering reflection on viewpoints and positions. The student witness indicates that these are not trite or superficial, or merely academic aspects of learning, but important life concerns — world events, personal issues, environmental issues, political and historical events. While the quantitative data suggest that the school library plays a role in enabling students to form connections between the different ideas they already have, this was not strongly attested to in the critical incident statements.

While the school library clearly contributes to the development of informed students, there is limited support for the school library enabling students to transfer this expertise to sharing their ideas in class discussions. This may be because the students are not given the opportunity to share the new understandings derived through research projects in class discussion, and can only submit the written document. It might also be that the students do not see the connection between a school library providing them with the information to construct their research products and giving them a factual basis for discussing their topics. The students' comments suggest that this is enhanced when they have instructional intervention focusing on presentation and oral communication skills.

4. How helpful the school library is with using computers in the library, at school, and at home.

It is very clear that the library's provision of a technological infrastructure, instruction in its use, and the provision of information technology tools to create and produce representations of their learning is highly valued by the students. This block of dimensions overall had the highest mean scores of the seven blocks.

84.9% of the students indicated that school library computers help them do their school work better. This dimension also had the second highest mean score in the data set (mean=2.8). The students' statements made over 3,000 references to computers, the Internet, online information, and the World Wide Web. Two key features stand out in the students' comments. First, students see a clear relationship between being able to access information through information technology, and achievement in research assignments and projects. Second, the instructional intervention of the school librarian in developing students as effective users of information technology to search for information, and the development of students as discerning evaluators of web information plays a role in achieving good grades.

The school library has contributed to students being more interested in computers. However, of all the statements relating to how helpful the school library was in relation to using computers in the library, (7 statements) at school and at home, this was ranked lowest in terms of the mean scores (Mean=2.18). The presence and use of computers

in the school library plays a role in maintaining and increasing interest in computers, but this aspect did not feature at all in the students' comments. As shown in the students' comments interest in computers was not for the sake of being interested in them, but in serving other requirements and needs.

94.3% of the students said that computers have helped them find information inside and outside the library, with almost half of the sample (49%) indicating that this dimension was most helpful. The mean score was 2.98. Students' comments affirm this helpfulness, enabling them to continue their school work at home, and to access information in other places, such as public libraries.

89.6% of the students indicate that the school library has helped them search the Internet better, with 33.2% of the comments indicating it was most helpful. The students' comments indicate that the explicit and systematic teaching of internet searching and research strategies is a key mechanism in this help, both at an individual and class level. Perhaps more importantly, the school library plays a critical role in enabling students to be more careful with finding internet information. Almost half of the students (47.5%) said that this was quite or most helpful. Two things emerge from the students' comments: first, students indicate that this is enabled by instruction which develops the skills of Internet information evaluation; second, it enables them to save time in the research process by not having to deal with junk information and improves their researching strategies.

The availability of technical tools in the library for enabling students to create information products clearly and strongly helps students to do their school work. Almost 40% of the students indicated that this was most helpful, with 60% indicating that this was quite or most helpful. Consistent with other technology-related statements, this helpfulness is not achieved by the mere availability of technical tools, but through instruction in their effective and efficient use, which appears to be provided by some school libraries. Students make links between this help and success in projects, as demonstrated by good grades.

While there is a public notion that students are gurus in an information technology environment, the findings here suggest that the school library contributes to the development of students who feel more positive about the use of information technology to do their school work. Almost 85.8% of the students indicated that the school library helps them feel better about using computers. As indicated in the students' comments, these feelings include becoming more comfortable, less stressed, less worried about using computers. The students identify personal intervention of the school librarian working with them as an enabling mechanism.

5. How helpful the school library is to you with your general reading interests.

The findings follow the pattern of existing research which supports the notion that the school library is an important vehicle for supporting wider reading interests. While the school library appears to provide some role in encouraging students to read more, it was ranked lower in the mean score rankings for each category. Students' comments do suggest some of the dynamics fostering this: knowledge of students' reading interests on the part of the school librarian, availability of a range of reading books targeted to personal interests to motivate students to keep reading, and follow-up dialogue with students. While 74.8% of the students indicated that the library has helped them get better at reading, its mean score (1.75) was low. None the less, students' comments indicate some ways how the library has helped them get better at reading: by seeing that reading is fun and enjoyable, improving vocabulary, and the reading intervention of the school librarian. The school library, in fostering a love of reading and connecting students to books they like to read, appears to contribute to students enjoying reading more. 76.7% of the students said that the library helped them enjoy reading more. The students' comments suggest that a major mechanism is the personal intervention of the school librarian linking student interest with appropriate literature. 74.9% of the students said that the school library helped them with their writing. In terms of the mean scores of each statement (mean = 1.73), this statement was ranked as the 8th lowest. This help appears to be strongest when there is explicit and structured provision made for the development of writing skills — the teaching of information analysis and synthesis as part of information literacy initiatives, and library-based events in collaboration with classroom teachers which focus on development of writing skills.

6. How helpful the school library is to you when you are not at school.

The development of independent, lifelong learners has long been an advocacy point of school librarians. They have focused on learners who have skills and interest for engaging with information out of school, for personal interest and ideas discovery and solving school-based and personal problems they encounter where information is needed in the process. 78.7% of students indicated that the school library helps them discover interesting topics other than their school work. The students' comments indicate that this happens in two major ways: first, engaging in a curriculum topic develops into a personal interest; and second, serendipitous browsing — the accidental discovery — where students happen upon interesting topics by chance which they pursue, with the help of the school librarian.

In response to the question that sought to identify interesting topics other than school work that the school library has helped students discover, 3,952 different topics

were mentioned by the students. 8,325 students mentioned two topics, 734 mentioned one, and 4,064 mentioned none. A total of 17,384 instances were recorded. These are across many interest domains. Some are broad (e.g. sports), while others specific (e.g., baseball, basketball). Four topical areas predominate: SPORTS: including football, basketball, baseball and skateboarding (1,194 responses); HISTORICAL/CIVIC/WORLD EVENTS: including war, World War II, Holocaust, current events, news, politics, Civil War, famous people (1,020 responses); ANIMALS: including dogs, cats and horses (886 responses); SOCIAL ISSUES/LIFE CONCERNS: including social studies, health, careers, drugs, colleges, jobs and sex (538 responses); and COMPUTERS: including Internet (230 responses).

DOCUMENT 3 (2 pgs.) The Top 50 Topics By Frequency, As Well As By Grade

Available at <http://www.oelma.org/SLFindings.html>

The predominant interest outside of class work where the library helps students is sports. The grade-by-grade analysis shows sports ranked high in every grade (highest in all grades except Grades 3 and 4, where it was the second highest in both). Animals ranks high in the elementary school and declines in interest as the grade level increases. A general interest in history in the lower grades gives way to a specific interest in current events and government in Grade 12. Focus on career choices emerges in year 12 (colleges) along with life concern issues (drugs). Boys appear to prefer ACTION oriented topics such as sports, cars, animals, sciences, wars, and space, and girls place stronger emphasis on the arts and literature, as well as sports and animals. The wide range of topics identified, (3,952 different topics were mentioned by the students, with 8325 students mentioning two topics, and 734 students mentioning only one) would indicate that the school libraries provide a diverse information base to serve a wide variety of personal interests outside of immediate curriculum needs.

82.5% of the students said that the school library helps them study at home. While this was not perceived to be most helpful to the students (16.6%), the qualitative responses give some picture of the dynamics of the help provided by the library as students work independently away from the school environment. The students indicate that the information handling skills taught in the school library — locating and accessing information, searching the web, getting quality information, constructing final products — are transferred to other settings, such as working at home. The skills appear to enable students to apply the skills and work independently. Their specific ability to find information when not at school has been enabled to some extent by the school library. The finding and locating skills taught in the school library are transferred to other settings, such as searching the Internet at home, and using the public library and university library. These skills appear to enable

students to work independently with other formal information agencies. Some students do see the library as enabling them to be more effective problem solvers, though the support for this statement is weaker than others — 7th lowest mean score (mean=1.7). The students' comments do not present a clear picture of this — some relate to help in the solving of computer/software/printing problems; problems associated with undertaking all aspects of research; specific learning tasks (e.g. math problems). While there were a small number of statements that provided some rich examples of using the library to deal with life concerns, almost 40% of the students indicated that this does not apply to them. There is some (comparatively weaker) evidence to indicate that the school library helps students in making decisions about progressing with their school work. Students' comments show applying skills learned in the library to forthcoming research tasks, with some suggestion that doing this makes those research tasks less daunting.

7. General aspects focusing on academic achievement.

There is strong support for the notion that the school library contributes to students doing their school work better. The students' comments often express a simple and clear view of the library as being fundamental to doing their school work better, and that they cannot do without it to achieve success in their schooling. Over half of the students (52.5%) said that the school library was quite or most helpful in helping them get better grades in their projects and assignments. There were almost 3,000 students' statements that expressed a clear, albeit simple relationship between what the library has done for them and getting a good grade. While students see a clear link between library help and grades received on projects and assignments, which directly involve interaction with the library, this link is not as strong in terms on grades on tests and quizzes. The majority of the students said that it does not apply (24.6%), or was a little help or some help. The students' comments however, suggest that the school librarian's interventions in terms of helping students study more effectively, the provision of sample test experiences, and access to materials that relate directly to test content, are keys to enabling test success to happen. There is some solid evidence to suggest that the school library is synonymous with thinking about school work. Students' comments convey the idea that the library is a place for learning activism, where emphasis is given to empowering students to use their minds well, rather than merely being given the information without any mental activity. While there is evidence that the school library helps students feel more confident about doing their school work in general, this statement was ranked low overall.

Further "Conceptions of Help"

In addition to the critical incident question giving concrete witness to the "helps" identified in the 48 statements, it

was hoped that this question would enable identification of additional "help" constructs not provided in the 48 statements. On the basis of the analysis, nine additional "Help" constructs have been identified. These are briefly described and illustrated by a small selection of students' statements.

DOCUMENT 4 (6 pgs.)

Student Comments to Illustrate Each of These Additional Constructs

Available at <http://www.oelma.org/SLFindings.html>

- 1. The school library saves me time with doing my school work.** Student comments related to this aspect conveyed a sense that immediate, local access to information collections, either print or electronic, saved time in getting their research tasks completed.
- 2. The school library enables me to complete my work on time.** Just-in-time learning is evident. On-time completion is a significant matter for the students, and being assisted in meeting deadlines through a range of library services and interventions is seen as helpful.
- 3. The school library helps me by providing a study environment for me to work.** Students identified that the provision of study space for quiet, individual, and at times reflective work is a valued part of the library.
- 4. The school library helps me take stress out of learning.** Timely access to resources and the development of the information scaffolds for engaging with information through instruction enables students to deal with the stress and anxiety they face. The school library appears to play a role in just-in-time learning and as a coping mechanism.
- 5. The school library helps me know my strengths and weaknesses with information use.** The development of meta-cognitive thinkers, showing an ability to step back and reflect on their experiences, understand their learning strengths and weaknesses, and learn by them is facilitated for some students.
- 6. The school library helps me think about the world around me.** There is some qualitative evidence that suggests that the school library plays a part in the development of global citizens; young people who have a sense of what is going on in the world, thinking about the issues and forming personal opinions about them.
- 7. The school library helps me do my work more efficiently.** There is evidence in the student comments that suggests that the library, particularly instruction focusing on doing research in systematic, staged and planned ways, helps students approach their work in a more organized and efficient way.

8. The school library provides me with a safe environment for ideas investigation.

While comparatively there were fewer comments in relation to this construct, some students' comments raise an important notion about the library being a safe place where students can investigate perplexing and controversial issues discreetly, perhaps anonymously, or even come to think and reflect.

9. The library helps me set my goals and plan for things.

The students' comments suggest that the school library plays a role in the development of a sense of personal agency. Sense of personal agency refers to a positive concept of oneself and one's abilities; a person who is capable and autonomous, who is able to set goals and work towards reaching them.

Other patterns in the data:

1. Girls consider school libraries more helpful than boys in terms of:

- getting the information they need
- using the information to complete their school work, and to do their school work in general
- using computers in the library, at school, and at home
- relating to their general reading interests.

There is no significant gender difference between boys and girls in relation to how helpful the school library is to them when they are not at school, and in relation to general aspects of academic achievement.

2. The "helps" of the school library is strongest in the elementary school, with a decrease shown in mean scores as students progress through schooling. The school library is an important place for elementary students to develop as information literate students. Generally, while there are not significant differences between grades 3 and 4, between grades 5, 6, 7, and 8, and between grades 9, 10, 11 and 12, there are decreasing mean scores between these grade groups. The "helps" of the school library are strongest in the elementary school, with a decrease shown in levels of help as students progress through schooling. The school library is clearly an important place for elementary students to develop a range of information competencies, and provides them with multiple opportunities to learn with information. This is not to say that students in upper grades do not need school libraries or the instructional interventions of school librarians. Quantitative data show that students in middle and high schools are helped substantially by the school library. Student comments indicate possible reasons for this decrease, particularly student mastery of a range of information skills which enable them to work independently and to transfer appropriate skills to new tasks, and to apply these acquired/learned skills to locate information beyond the library.

It might be said that the effective high school libraries in this study do contribute to the development of independent

learners, a goal typically articulated in many school library policy documents around the world. The importance of the "helps" provided to students in the elementary school signals that in all elementary school libraries, not just middle and high school libraries, students would clearly benefit from professional school librarians who engage in information literacy instruction. The school library at all levels of schooling, particularly staffed with professional school librarians who actively engage in instructional intervention centering on the development of information literacy, provides significant opportunities for students to learn.

3. An analysis of the mean plots for ethnic differences in each of the seven categories indicates that for Blocks 5, 6 and 7 the scores of African Americans are significantly higher than Whites. African American students find the school library to be significantly more helpful in relation to reading development and interests, when they are learning away from school, and in terms of the overall perceptions of achievement. For the other categories, the differences between African American and White students is not significant, but raw scores show higher levels of help for African American students. While the school library is of benefit to all students, it particularly affords African Americans meaningful opportunities to learn and to achieve.

4. An analysis of mean plots for differences among the Ohio district report card performances indicate that generally the scores of students in Continuous Improvement schools and Effective schools are higher (in some cases significantly higher) than Academic Watch and Excellent schools. School libraries appear to play a role in enabling schools to reach performance excellence standards.

5. An analysis of mean plots for differences among the geographic locations of schools indicate that generally the scores of students in small city schools are significantly higher than other types of schools. The mean scores for rural schools in relation to the provision of information technology are significantly higher than schools in urban/suburban areas. Rural schools clearly value the help provided by school libraries in relation to access to information technology through the school library in and beyond the school, as well as the instructional intervention in the development of technological literacy.

Emerging Issues

As indicated in the research study Fact Sheet and Summary, the focus of this study was on conceptualizing and measuring school library "helps." A small number of students indicated that the school library did not help in any of the ways identified. Some of these students took the opportunity in the free writing task to tell why. In addition, a small number of students provided examples of "helps" and their outcomes, as well as stating how school libraries might be improved. These are briefly summarized

here. These indications of non-help are few in number as identifying these was not the purpose of the study, and will need to be validated in further studies that focus explicitly on that construct. Consequently, the ideas raised here need to be interpreted with care and caution — clearly school libraries in the sample do help students, and in very strong ways. Four key issues identified by the students are:

1. The problematic nature of library instruction

Students saw little value in library instruction that was repetitive, not building on existing knowledge and skills, not contextualized by specific curriculum content and required learning tasks, and which was not clearly and explicitly linked to their goal of completing the research efficiently and successfully. Students appear to value instructional intervention when it meets a need understood and valued by the students, and when the instruction makes clear and explicit links to the outcomes — both content and product. Students indicate that the annual library tour, the repetitive spiels on Dewey, the dos-and-don'ts of the Internet are meaningless unless it conveys to them clearly and concretely how it helps them reach their objectives, particularly the successful completion of their research.

Illustrative comments: (Student comments are original except for minor edits for clarification.)

2830 *I would rather not have any information at all than to come to this library and listen to the same speech on how to use computers over and over again. I waste more time listening to these speeches than I do looking up information!*

2926 *I don't really use the library much because I don't have much free time to. When we are down here I fell that the librarian spends much more time explaining books than allowing us to research.*

9364 *If anyone says, "Be careful what you read on the Internet" one more time, I'm going to die. We know how to judge the accuracy of information! Anyway, that's the end of my tirade — hopefully change will come out of this....we need drastic reform here.*

2. Student interaction issues

Students value professional, respectful and courteous interactions, and appear to engage more readily with library services when their needs are met in a supportive, constructive and pleasant manner. There is no question that interaction and communication involve the multiple dynamics of all involved.

Illustrative comments:

3131 *I'm usually not one to hang out in the library all that much so they don't do all too much for me as they are such control freaks.*

1771 *Well, they help me with about all of my projects, especially Social Studies and science. The science ones they helped me much on were my Kite project (helped me find the "how to make kites" books) and my Iron project (I was in deep doo-doo on that one until they helped me find a lotta books on Iron) Then in Social Studies they helped me find books on a lot of my projects (King Tut, Roman Catholic Church, etc.) It was pretty easy too, Very helpful to me! And then they just helped me find books....and loaned the book carts to my classrooms, to help us out. I just think they need to be nicer sometimes.*

9793 *I can't remember the last time the librarians helped me. The Librarians are mean and I am too afraid to talk to them because they intimidate me. They have unjustly yelled at me in the past so I am not going to them for help when I could go to the public library or use my own computer at home.*

3. Access issues

Some students were clearly frustrated by BESS (Internet filter) and see it imposed on them because of mistrust of their information seeking on the Web, or perceived infringement of rights. What emerges here is the importance of providing students with an understanding of the ethical and protective issues surrounding the use of information technology, and understanding how these impact on information seeking and use. Some other students saw the school library's rules as restrictive, preventing some access at point of need. Given the critical demands made on information services, the development of strategies, systems and services to maximize access for all students is critical.

Illustrative comments:

9905 *I personally never come to the school library. I may use one of the computers in here if there are no other available ones in the school. I would rather use the internet anyway, rather than books. Even if I wanted to, all of the information in there is edited, or not even in there at all. So we'd all rather go to a PUBLIC library, where we are not forbidden from every single topic that interests any of us. Besides, the library is too small, and god forbid you even talk or whisper in there without getting yelled at.*

2598 *We have to come to school knowing we need to go to the library at a given time that day and receive a pass in the morning. I like to go to the public library and sit and read. The whole pass system discourages me from even coming into the library at all on some days.*

3960 *The school library helped me to complete an entire English project during class time. However, the library rules are restricting keeping students from coming and going as they please and limiting the amount of time spent in the library. Though the library resources have the potential to be quite useful, it is inconvenient and not an inviting atmosphere.*

2583 *All the censorship issues the student encounter really hold back much of the possible research we can do. IT is really annoying that I can vote, be sent to war, and I cant even look at any pages on the internet. Bess the dog really holds the students back from their full potential.*

3005 *The school library helped me find one book for a report on endangered species. I also used the internet here but so many pages were barred that I had to go home and use my own computers to get any information. The school library needs to take away unnecessary blocks on the internet. I can't even access my own website. I can't check many of my favorite websites (none of them happen to be of inappropriate nature) at school.*

3890 *They should have a place were people could go and look up what they want instead of something school related. You should be able to look up non-school related. This should be important but Bessy babe puts an end to that.*

4. Quality Technology

Students value fast, stable, reliable and up-to-date information technology. It saves them time, enables them to work more efficiently, and reduces stress associated with research. Down times and a limited number of access terminals are also perceived to be problems.

Illustrative comment:

9902 *The only time I can really think of was when I had to do a school project on steroids. There was lots of information. Other than that the computers in the library and in the rest of the school are utterly ridiculous. We spent so much money on the lap tops that don't even work. I'm so disgusted by the schools computers that I cannot even begin to describe my disgrefencies. On a scale of 1-10 I give our school library/computer lab a 1. I would appreciate it if our school did something about this because it is out of our control and we are the ones who are suffering.*

Faculty Perceptions

The following summary highlights some key aspects of the faculty survey as it relates to the student findings.

Faculty Demographics

The data analysis and subsequent reporting of findings and conclusions is based on a data set of 879 valid responses, drawn from 35 schools across Ohio. The data collection period, from April 27th to June 30th 2003, brought in a total of 935 records. Similar to the process with the student data, the data were carefully examined and prepared for analysis using SPSS ("Statistical Package for the Social Sciences"). Version 10.0 for Windows. In the process of cleaning up the data, 56 records were removed. These were either completely empty records where a school number was provided without any subsequent data; or records where the six digit school code (IRN) could not be identified.

The sample consisted of 276 males (30.4%) and 603 females (68.6%). Nine respondents did not signify their gender. The difference between the number of males and females is significant. The number of females is significantly higher than males. [(1, N = 870) = 129.766, p < .001]. The faculty group is primarily White (96.2% of sample), as compared to 78.5% of the student sample. The difference of the numbers of the faculty between each ethnic group is significant. The numbers of African American, Asian, Hispanic, Multi-racial, Native American and Other groups are significantly lower than average (which is approximately 126). The number of Whites is significantly higher than the average. [(6, N = 846) = 4822.528, p < .001]. The majority of the faculty respondents were classroom teachers (N=777; 88.4%). The second largest group was school librarians (N=45; 5.1%). Other respondents were Principals (N=17), Assistant Principals (N=17), and Technology Specialists. (N=22). [(4, N = 875) = 2591.989, p < .001]. Of the faculty, 55.5% were from schools with the performance category of Excellent. 82.9% of the faculty where from schools with performance categories of Excellent and Effective (compared to 84.9% of student sample). The numbers of the faculty in Academic Watch and Continuous Improvement schools are significantly lower than the average (which is approximately 220). The number of the faculty in Excellent schools is significantly higher than the average. The number of the faculty in Effective schools is around the average. [(3, N = 879) = 541.173, p < .001]. The majority of the faculty came from Urban/Suburban districts (87.7%), compared to 80.9% of the student sample coming from Urban/Suburban districts. The numbers of the faculty in schools in Rural, Small City and Large City are significantly lower than the average (which is approximately 220). The number of faculty in schools in Urban/Suburban is significantly higher than the average. [(3, N = 879) = 1845.164, p < .001].

Faculty Responses to 48 Statements

The central feature of the faculty survey was soliciting faculty's perceptions of the extent to which the school library has helped their students at school and at home. The survey's instructions, structure, content and administration were similar to the student instrument. As with the student survey, the administration of the surveys in schools conformed to strict ethical guidelines to ensure data collection procedures were consistent across schools. No coercion was involved in the faculty completing the survey, and faculty could freely withdraw from the survey without explanation. Faculty was not asked to say anything they did not wish to say.

Only two faculty out of 879 indicated that none of the 48 statements applied to them— that the stated perceived "helps" of the school library with their students' schooling and learning at home did not apply. This is 0.23% of the total sample. In other words, 99.77% of the faculty (877

faculty) indicated that the school library and its services have helped students in some way, regardless of how much, with their learning in and out of school as it relates to the 48 statements.

46.53% (409) of the faculty perceive that the library has helped students, regardless of how much, with their learning

on all 48 statements. 76.34 % (671) said that they perceived that the school library has helped students in some way, regardless of how much, on at least 43 of the statements.

In the tests of faculty group differences (t-test for Equality of means, significance level 0.05), there is no gender

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The following table shows the 48 statements, the Likert measurement, and the percentage distribution of responses for all statements.

Table 5

Faculty Survey Statements by Blocks: Percentage of Responses					
Block 1. How helpful the school library is for students with getting information they need.	Most helpful	Quite helpful	Some help	A Little help	Does not apply
Q11: The school library has helped students know the different steps in finding and using information.	55.7	34.1	5.9	1.1	3.1
Q12: Information in the school library has helped students work out the questions for the topics they are working on.	52.8	35.4	7.2	1.5	3.2
Q13: The school library has helped students find different sources of information (such as books, magazines, CDs, websites, videos) for their research topics.	62.7	26.6	6.5	1.6	2.6
Q14: The school library has helped students know when they find good information.	38.7	38.3	15.5	3.8	3.8
Q15: The school library has helped students find different opinions about their topics.	34.7	39.5	14.7	4.1	7.1
Q16: The school library has helped students feel better about doing research.	43.8	35.3	12.2	4.2	2.6
Q17: The school library has helped students feel better about asking for assistance when they go there.	53.4	30.1	8.2	5.7	2.6
Block 2. How helpful the school library is for students with using the information to complete their school work.	Most helpful	Quite helpful	Some help	A Little help	Does not apply
Q21: The school library has helped students know how to use the different kinds of sources such as books, magazines, CDs, websites, videos.	54.9	32.0	9.4	2.2	2.4
Q22: The school library has helped students work out the main ideas in the information they find.	25.7	39.8	23.9	4.4	6.1
Q23: The school library has helped students get better at taking notes.	11.8	22.8	31.3	15.4	18.8
Q24: The school library has helped students put all the ideas together for their topics.	19.7	32.5	26.7	10.7	10.4
Q25: The school library has helped students put ideas in their own words.	14.2	24.3	33.8	15.6	12.1
Q26: The school library has helped students think about how they should find information next time.	43.2	37.0	12.7	3.1	4.0
Q27: The school library has helped students know that research takes a lot of work.	47.6	35.5	9.8	3.4	3.8
Q28: The information students have found in the school library has helped them become more interested in their topics.	42.7	34.7	14.2	3.5	4.9
Block 3. How helpful the school library is with students' school work in general.	Most helpful	Quite helpful	Some help	A Little help	Does not apply
Q31: The school library has helped students remember their school work.	9.8	24.1	28.0	13.9	24.2
Q32: The school library has helped students get background information for classes.	31.2	35.4	17.0	5.6	10.9
Q33: The school library has helped students learn a lot more facts about their topics.	52.4	35.0	8.3	1.9	2.3
Q34: The school library has helped students when they do not understand some things they learn about.	28.3	35.6	22.5	7.1	6.5
Q35: The school library has helped students figure out if their own ideas are good or bad.	14.2	29.6	30.7	11.1	14.3
Q36: The school library has helped students change their minds about some things they thought they knew.	20.6	37.4	25.1	5.9	10.9
Q37: The school library has helped students figure out their own opinions on topics.	17.4	25.5	26.6	8.1	12.4

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Table 5

Faculty Survey Statements by Blocks: Percentage of Responses

...Continued from page 17

Q38:	The school library has helped students connect different ideas they already have.	25.0	38.0	23.7	5.0	8.3
Q39:	The school library has helped students talk more in class discussions.	19.0	30.7	23.9	11.0	15.4
Block 4. How helpful the school library is with using computers in the library, at school, and at home.		Most helpful	Quite helpful	Some help	A Little help	Does not apply
Q41:	Computers in the school library have helped students do their school work better.	61.5	23.5	9.9	2.7	2.3
Q42:	The school library has gotten students more interested in computers.	52.9	27.3	12.7	3.5	3.5
Q43:	Computers have helped students find information inside and outside of the school library.	69.9	20.6	6.0	1.6	1.9
Q44:	The school library has helped students search the Internet better.	67.7	20.5	7.1	2.2	2.6
Q45:	The school library has helped students be more careful about information they find on the Internet.	47.4	29.5	14.6	4.8	3.8
Q46:	Computer programs (like PowerPoint, Word, and Excel) in the school library have helped students do their school work.	54.7	22.9	9.6	5.0	7.8
Q47:	The school library has helped students feel better about using computers to do their school work.	55.6	27.3	9.0	4.4	3.6
Block 5. How helpful the school library is to students with their general reading interests.		Most helpful	Quite helpful	Some help	A Little help	Does not apply
Q51:	The school library has helped students find stories they like.	43.3	29.5	13.7	4.7	8.9
Q52:	The school library has helped students read more.	37.8	29.6	17.9	8.1	6.7
Q53:	The school library has helped students get better at reading.	27.6	29.8	22.0	8.4	12.2
Q54:	The school library has helped students enjoy reading more.	35.3	27.9	20.0	8.1	8.8
Q55:	The school library has helped students be better writers.	18.7	27.1	28.4	12.4	13.4
Block 6. How helpful the school library is to students when they are not at school.		Most helpful	Quite helpful	Some help	A Little help	Does not apply
Q61:	The school library has helped students discover interesting topics other than their school work.	39.2	34.0	16.8	4.1	5.8
Q62:	The skills that students have learned in the school library have helped them study at home.	21.4	34.2	25.1	8.5	10.7
Q63:	The school library has helped students get more organized with their homework.	10.6	24.6	30.5	16.3	18.1
Q64:	The school library has helped students find information even when they are not at school.	33.2	31.7	17.2	8.8	9.1
Q65:	The school library lessons have helped students solve problems better.	21.4	29.5	26.1	9.2	13.9
Q66:	The school library has helped students when they have a personal issue or concern.	12.5	16.8	23.9	17.7	29.0
Q67:	Information in the school library has helped students decide what they need to do next with their school work.	15.0	27.0	26.7	14.1	17.2
Block 7. Now, some general things (ACADEMIC ACHIEVEMENT).		Most helpful	Quite helpful	Some help	A Little help	Does not apply
Q71:	The library has helped students do their school work better.	28.1	37.8	21.3	6.0	6.8
Q72:	The school library has helped students get better grades on their projects and assignments.	37.3	37.4	15.6	4.4	5.2
Q73:	The school library has helped students get better grades on tests and quizzes.	13.3	25.7	28.7	14.7	17.6
Q74:	The school library has helped students think harder about their school work.	19.1	31.6	25.5	11.6	12.2
Q75:	The school library has made students more confident about doing their school work.	25.5	32.5	24.1	8.6	9.2

difference in answering questions for Blocks 1, 2, 3, 4, 5, and 6. Females have more positive attitude toward Block 7. There is no significant difference among ethnic groups for each question. There is no significant difference for faculty in relation to the different faculty positions in answering questions for Blocks 1, 2, 3, and 4. There is significant difference for faculty in different positions in answering questions 5, 6, and 7. In particular, for question

5, 6, and 7, school librarians have significantly more positive attitudes than classroom teachers. The differences between other groups are not statistically significant. There is no significant difference for faculty members in schools with different Ohio district report cards in answering questions for Blocks 1, 5, 6 and 7. There is a significant difference for faculty in schools with different report cards in answering questions for Blocks 2, 3 and 4. More specifically, for these

Table 6

CATEGORY	Most Helpful	Quite Helpful	Some Help	A Little Help	Does Not Apply	Mean	SD
1. How helpful the school library is for students with getting information they need.	48.8	34.2	10.0	3.1	3.8	3.2103	.7954
2. How helpful the school library is for students with using the information to complete their school work.	32.4	32.3	20.2	7.3	7.8	2.7420	.8507
3. How helpful the school library is with students' school work in general.	24.2	33.5	22.9	7.7	11.7	2.5080	.9080
4. How helpful the school library is with using computers in the library, at school, and at home.	58.5	24.5	9.8	3.5	3.7	3.3081	.8196
5. How helpful the school library is to students with their general reading interests.	32.5	28.8	20.4	8.3	10.0	2.6553	1.0810
6. How helpful the school library is to students when they are not at school.	21.9	28.3	23.8	11.2	14.8	2.3119	.9851
7. Now, some general things (ACADEMIC ACHIEVEMENT).	24.7	33.0	23.0	9.1	10.2	2.5283	1.0120

questions, faculty members in Continuous Improvement schools have more positive attitudes than those in Excellent schools. The differences between other groups are not statistically significant. There is no significant difference between the faculty of the different types of schools in answering all questions.

The comparison of the student data and faculty data show that the average responses from the faculty are even more positive than those from the students in all of the blocks. A comparison of rank based on mean scores as shown below, highlights several important patterns.

There is an overall consistent pattern in the rankings. The top three groups perceived to be helpful to the students

are also the top three groups perceived by the faculty to be helpful to the students. There is a variation in terms of Block 1, finding and using information, which is ranked higher by the students, and Block 4, using computers in the school library, which is ranked higher by the faculty. Block 6 and Block 7 are similarly ranked by faculty and students as the lowest rankings. The most important differences are with Block 3, school work in general. Students' rankings here are higher than the faculty, perhaps an indication of the teaching faculty's role in teaching content; and Block 5, where the faculty's expectations of the school library's role in terms of reading development are higher than the level of "helps" observed by students.

Table 7

Blocks (From Table – Survey Questions)	Student Mean	Rank Means	Faculty Mean	Rank Means
Block 1: find and locate information	2.5354	1	3.2103	2
Block 2: use information to complete school work	2.2508	3	2.7420	3
Block 3: school work in general	2.0701	4	2.5080	6
Block 4: using computers in the school library, at school, and at home	2.5293	2	3.3081	1
Block 5: general reading interests	1.9069	6	2.6553	4
Block 6: outside school	1.7723	7	2.3119	7
Block 7: some general reactions (Academic Achievement)	1.9656	5	2.5283	5

Overall the study provides a multi-dimensional perspective of the nature of school library "helps." The different data sources: the student quantitative responses, the student critical incident responses, and the faculty quantitative responses, provide a comprehensive multi-perspective view of the "helps" of effective school libraries across Ohio. In this study, there is a strong consistency of findings from these diverse data sources. These consistent multiple

perspectives, we believe, add to the validity, strength, and interpretative potential of the study and decrease investigator biases.

Conclusions

The study sought to identify the ways in which an effective

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school library helps students learn, and to get a picture of the extent of this “help.” For students in this large sample (one of the largest student samples ever involved in the history of research studies of school libraries) effective school libraries clearly help students with their learning in multiple and diverse ways. This can be verified by the students’ responses to the 48 statements, as well as in other dimensions identified in the students’ qualitative statements about how the school library helps them. An effective school library, lead by a credentialed school librarian, one who is particularly engaged in an instructional process centering on the development of students’ intellectual scaffolds for engaging with and using information for building knowledge, clearly plays a vital role in facilitating student learning. An effective school library and its professional, curriculum-centered school librarian, represent a major opportunity for students in Ohio to learn.

School Library as Dynamic Agent of Learning

Effective school libraries are dynamic rather than passive agents of learning. The ranked mean scores for each of the different statement Blocks indicate that the effective school library helps the strongest in terms of:

- providing access to information resources necessary for students to complete their research assignments and projects successfully, and
- providing access to both print collections within the library and electronic resources through databases and the World Wide Web.

One would expect this as an obvious function of a school library. However, the quantitative and qualitative responses show that the school library’s strength is not just in its capacity to provide access to information – the library as a passive supply and exchange agency. What is clearly perceived to be of help is the library’s part in engaging students in an **active process** of building their own understanding and knowledge – **the library as an agency for active learning**. The students indicate that some of the fundamentals necessary for them to construct their own understanding of a topic are:

- understanding how to do research effectively
- understanding how to identify key ideas
- analyzing, synthesizing and evaluating information
- structuring and organizing ideas
- developing personal conclusions

What this conveys is the notion of an effective school library not just as an *information place*, but also as a *knowledge space* where students develop the appropriate information literacy scaffolds to enable them to engage with information, and make decisions about the information they encounter in terms of its worth and appropriateness. An effective school library is not just *informational*, but *transformational*. This role cannot be underestimated, and it is fundamental

that budget, resource, and support provisions be directed to ensuring that the library, as both informational and formational, is clearly provided for. This is something that the whole school and educational system must understand and capitalize on.

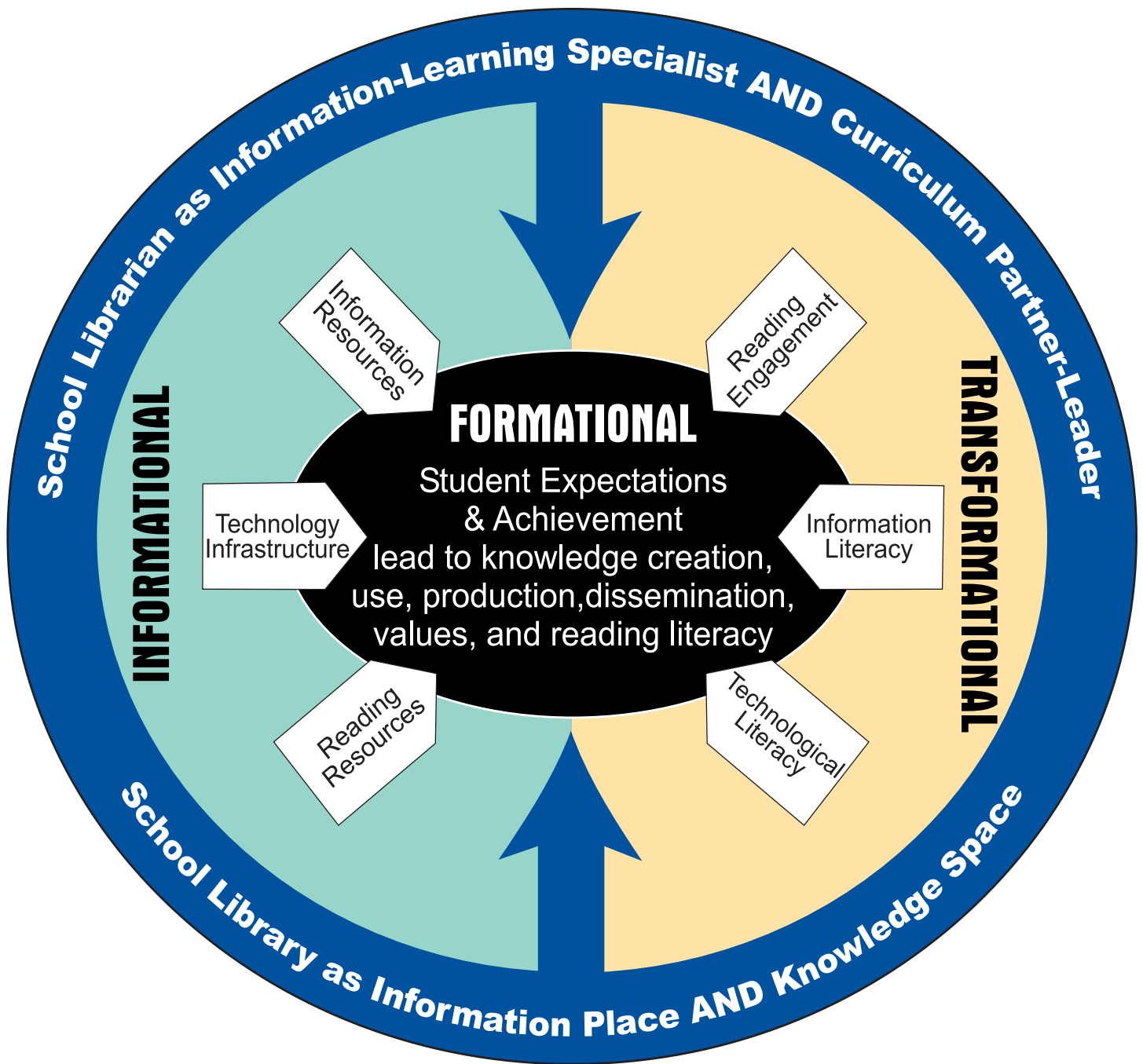
General academic achievement dimensions, reading and independent learning, were some of the lower scores. This is not to say that the school library does not help students here – the findings suggest that they do a noteworthy job, but that other aspects are seen as more helpful than these. While reading was ranked comparatively low in terms of helpfulness, effective school libraries in Ohio do play a role as an *agent of independent reading and personal development*. This role is clearly stronger at the lower grade levels than at the higher levels, however, students’ comments across all grades identify the “help” of the library in engaging them in independent reading for the love of it, and they identified 3,952 different topics that the library has helped them explore. Reading materials targeted beyond informational curriculum needs – personal pursuits, pleasure/leisure reading, and reading for becoming citizens of a democratic world are accessed by students, and they appear to value planned approaches to promoting and encouraging reading for life-long learning. The lower overall scores for reading and the student comments reflect that some students do not view the primary role of the school library as supporting their leisure activities or personal pursuits. Whereas they clearly view the school library as supporting their information and curriculum needs, there is some indication that students are so busy with completing research imposed on them for their curriculum requirements that they actually have little time to engage in more pleasurable reading pursuits. It may be that independent reading is a casualty of intensely academic and test-oriented schooling.

While students appear to recognize and value the library’s help in relation to research for assignments and getting good grades in them, the broader relationship of how the library helps their overall thinking about their school work, tests and quizzes is not as strong. The school library would well serve its own role in student achievement by clarifying at the local level its part in helping students learn, and articulating more clearly and concretely its positive impact.

Integrated Model of the School Library as a Dynamic Agent of Learning

The following integrated model (See Figure 3) of the school library as a learning agency emerges from the data. The notion of agency is a very important concept, and one that appropriately describes the effective school libraries in the sample. “Agency” reflects a condition of being in action or operation, engagement, acting for others. Conceiving and valuing the school library as an agency of learning takes away the perception that its primary (and passive) function is supply and exchange.

Figure 3
Model of the School Library as a Dynamic Agent of Learning



Effective School Libraries in Ohio Are —

Resource Agents: The school library and librarian provide up-to-date diverse resources to meet curriculum and informational needs. They provide instructional interventions to guide students in their information choices through effective, appropriate and considered use of these resources. Access to and instruction in the effective use of information technology is an essential component.

Information Literacy Agents: The school library and librarian engage students in an active and meaningful search process contextualized by specific learning tasks, enabling them to explore, formulate and focus their searches, and providing a supportive environment (personal, physical and instructional) for students to be successful in their research. Students understand what good research is about, how to undertake good research, and know that doing good research will result in academic success in research projects and learning the specific content of curriculum areas.

Knowledge Construction Agents: The librarian's instructional interventions develop the information literacy scaffolds for engaging in information in meaningful ways that enable students to construct and effectively demonstrate new knowledge and understanding. These information scaffolds are behavioral, cognitive and affective (identifying existing knowing, establishing needs and gaps, questioning, defining, searching, finding, locating, formulating, focusing, challenging, evaluating, filtering, analysing, organizing, interpreting, constructing, synthesizing, critiquing, reflecting, creating, problem solving, getting direction, moving on, making decisions, getting answers, coping, feeling confident, motivating, managing anxieties and uncertainties). These scaffolds are developed through instructional intervention: systematic, explicit and contextualized instruction at class, group and individual levels targeted to a range of information literacy benchmarks.

Academic Achievement Agents: Students do see that they get good grades, particularly on research projects and assignments, when there is school library intervention, specifically targeted and contextualized instruction in information literacy. Of all 10,000 student statements, the primary outcome articulated was getting a good grade or getting a better grade, with many acknowledgements of improvement in grade because of the help provided. Underpinning this achievement is a complex understanding of the pedagogy of information literacy, team teaching and learning, the information seeking behavior of students, learning styles for resource-based learning, and individualized instruction responsive to diverse groups of learning, including students with special learning needs. Critical to achieving this notion of academic achievement agent is a school librarian who is both credentialed and a successful educator.

Independent Reading and Personal Development

Agents: The school library plays a role in fostering independent reading, a role clearly stronger at the lower grade levels than at the higher levels. Reading materials targeted beyond informational curriculum needs – personal pursuits, pleasure/leisure reading, and reading for becoming citizens of a democratic world – provide the important foundation, and students are afforded opportunities to engage in many diverse topics outside of their immediate curriculum topics. Essential here is the planned development of approaches to promote and encourage reading for academic achievement and life-long learning, and the development towards high levels of reading literacy.

Technological Agents: The school library's role in information technology goes well beyond that of the provision of information technology to access information. It plays an important role in the production of information products through the provision of up-to-date and wide ranging software for manipulation and presentation across multiple medias. Correspondingly, the instructional intervention by the school librarian goes beyond teaching students how to make effective use of this software, but also troubleshooting technical problems – disk, printing, web access, software – and providing for the development of technical problem solving competencies.

Rescue Agents: Just-in-time learning is enabled by the library “being there” at crisis points. Students appear to have many information crises – needing resources fast, need resources in the nick of time, needing help with technology, needing technical solutions to failed technical pursuits, needing solutions to developing their information products. Indeed, even as Rescue Agent, the library is opportunistic, responding to multiple needs arising from learning.

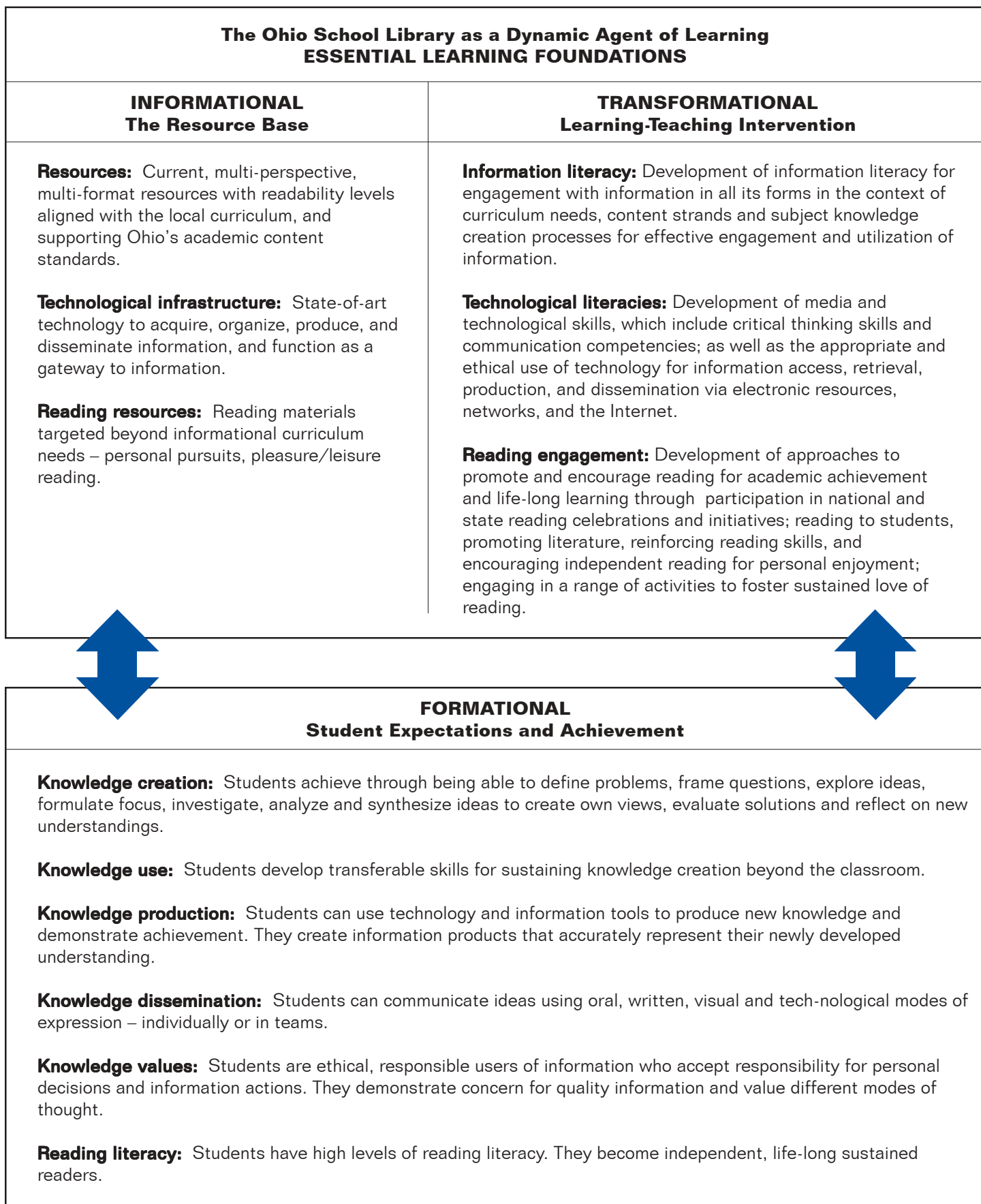
Individualized Learning Agents: As one student so clearly stated: “It wasn't really the library it was the librarians that helped me. They are always very helpful.” Personal engagement with students to initiate and enable the “helps” is a critical component of an effective school library. Underpinning the students' valuing of instructional intervention in information literacy development, are school librarians who have a clearly defined role in information-centered pedagogy as information-learning specialists. It is essential that demonstrated performance in this regard is a school-wide expectation of all school librarians.

Recommendations and Implications

Accordingly, the essential foundations for an effective school library in Ohio's schools are identified in the model below. All Ohio schools are encouraged to strive for excellence through continuous improvement of all school libraries. These building blocks for excellence are not to be

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Figure 4



perceived as independent blocks; rather, as *informational*, *transformational* and *formational* elements that work together in integrated and iterative ways to bring about student achievement (see Figure 4).

These informational and transformational foundations have implications for the professional staffing and building requirements in each school.

As a result of the Ohio research study, it is recommended that:

- ***all school library programs provide instructional intervention, through a credentialed school librarian, which centers on the development of information literacy skills for inquiry learning***
- ***all school libraries, including elementary schools, be staffed with credentialed school librarians who have educational certification and who engage in collaborative instructional initiatives to help students learn and achieve***
- ***all school librarians have a clearly defined role as information-learning specialist, with expertise***
 - as an instructional designer who creates and delivers information literacy instruction at class, group and individual levels;
 - as an educational partner-leader who mutually collaborates, negotiates, and plans with school administrators, teachers, students and parents to implement information literacy instruction in the curriculum;
 - as a school library program administrator who mutually negotiates, plans and implements a whole-school library program which articulates the integration of information, transformations and formation, as well as the managerial and organizational dimensions of the role; and
 - as a partner-leader in the provision of learning-oriented professional development targeted to whole school success of learning goals.
- ***all school libraries provide a learning-centered space supported by a strong technology infrastructure***
- ***all stakeholders engage in sustained and action-oriented discussions in the context of continuous improvement of the necessary resources, technology and staffing requirements needed to maximize the learning opportunities through school libraries.***

The findings provide a clear message to all stakeholders who have decision-making responsibility for school libraries at all levels – provision of resources, provision of information technology, provision of space, provision of information-learning leadership, provision of information-learning

initiatives – represent significant opportunities for students to learn and to achieve. **When effective school libraries are in place, students do learn. 13,000 students cannot be wrong.**

Continuation of the information-learning specialist role of the school librarian will mean that students at all school stages will benefit. The strength of the findings at the elementary level – that elementary school children in effective school libraries do have early and high amounts of help made available to them, and value this help – raises significant concerns about those elementary school students, indeed any school students, without the leadership and learning-centered role of a school librarian. It would appear that they miss important opportunities to learn and improve academically. It is important that credentialed school librarians with educational certification, and who engage in collaborative instructional initiatives to help students learn and achieve with information continue to be employed in all school libraries.

The findings provide a picture of what effective school libraries can do in providing opportunities for students to learn. They identify dimensions of school library services and roles which clearly help students. Particularly important to student success is a strong information technology infrastructure, and the provision of state-of-art technology to access, acquire, organize, produce, and disseminate information. This study shows the scope of opportunities to learn through effective school libraries, and provides a challenge to all stakeholders to replicate these outcomes across the state. The successes of these school libraries show what can be focused on and improved in any local school, and they provide useful benchmarks for measuring improvement.

We recommend that all stakeholders engage in sustained and action-oriented discussions in the context of continuous improvement of the necessary resources, technology and staffing requirements needed to maximize the learning opportunities, and to establish long term and short term plans to address the gaps. Data in this study provide a useful mechanism for undertaking this gap analysis. Given the key role of INFOhio, and the use of its information technology services provided to schools, (services valued by students according to student comments), we encourage INFOhio to be an integral part of these discussions in identifying technology gaps and being a solution provider, however these solutions might be articulated.

Recommendations for OELMA

To enable all local schools to improve in the goal of providing effective school libraries, this study recommends that the Ohio Educational Library Media Association take a strong leadership role in providing professional development to ensure all school librarians reach performance standards. OELMA is now in a unique position to take hold of a prized

opportunity for student-learning centered leadership, one that might have as its central theme to the profession: “we can help you get here.” This leadership role must enable school librarians to critically audit and evaluate their school libraries and to engage in professional benchmarking, and empowering all school librarians to engage in learning initiatives. The learning opportunities identified by students in this study do not happen by chance, and not by the mere provision of good resources and technology. Clearly empowering all school librarians to engage in learning initiatives must be a central feature of OELMA’s leadership role.

Final Reflections

The study provides a rich opportunity for providers of teacher education and education of school librarians across Ohio to provide training for future educational leaders which capitalizes on the opportunities for future students to learn through effective school libraries. The dynamics of the school librarian as an information-learning specialist, working mutually with classroom teachers to foster opportunities for students to learn well in information age schools, particularly through effective school libraries needs to be positioned as mainstream educational best practice in both programs of teacher education and education of school librarians. Arenas that might be focused on include instructional design and the articulation and mastery of the role of the school librarian as an information-learning specialist. Another arena is the detailed consideration of school librarians as reading experts - engaged in reading diagnostics, reading enhancement and literacy development, and the necessary reading certification required. Furthermore, the school library’s role in reading development needs considerable discussion and input by OELMA.

The study provides opportunities for further research. In elaborating “conceptions of help.” the basis is provided for comparative and experimental research which provides opportunities to explore more richly the dynamics of “helps,” as well as investigate conception of “non-helps,” or barriers in the provision of help. The findings provide opportunities to undertake detailed case studies in relation to the school libraries connect/disconnect to reading literacy development, and to understand more fully how school libraries impact reading achievement. Providers of education for school librarians in Ohio may wish to take up this agenda.

In reflecting on the results of this study, it is appropriate to ask the following questions. What would happen to students in Ohio if all the “help” identified was not available to them through the provision of effective school libraries? What would happen if all of the information infrastructure, resources, information technology, informational and instructional expertise of the school librarian were taken away, or reduced? And in light of the clear role of these

school libraries as dynamic agents of learning, it is also appropriate to ask this question: What would happen if all school libraries across Ohio had appropriate resource and technological infrastructures and were staffed with professional school librarians who actively created their school libraries as dynamic agents of learning?

The answers to these questions center firmly around the provision or absence of concrete opportunities for students to learn in a rich, complex and diverse information environment and reach higher levels of achievement. In Ohio, the provision of opportunities to learn is critical to students not being left behind. The findings echo the words of First Lady Laura Bush: “School libraries help teachers teach and children learn, children and teachers need library resources – especially books - and the expertise of a librarian to succeed. Books, information technology, and school librarians who are part of the schools’ professional team are basic ingredients for student achievement.”