AIME SUMMARY AND RESPONSE TO SURVEY RESULTS: *How Students, Teachers & Principals Benefit from Strong School Libraries: The Indiana Study*

The Indiana study—*How Students, Principals, and Teachers Benefit from Strong School Libraries*—was two studies in one. The first study involved a simplified replication of a research design employed in Colorado and more than a dozen other states to measure the impact of specific characteristics of school library programs. The second study—and the chief focus—in this project explored more qualitative issues impacting test scores, most concerning the perceptions of library media specialists (LMSs), principals, and teachers. The findings of this study, while consistent with other previous research and conventional wisdom, make a start at expanding understanding of the nuances of the relationships between the three above-mentioned educator types and how those relationships benefit not only the participants, but also students.

Key Findings

The key findings of this study are clear: schools tended to perform better on the ISTEP+ tests where there were better-staffed, better-stocked, and better-funded school library programs. This finding takes into account the influence of poverty and race/ethnicity, which otherwise obscure the impact of school library programs.

Across grade levels, better-performing schools also tended to be those whose principals valued:
    collaboration between LMSs and classroom teachers in the design and delivery of instruction,
    flexible scheduling of library access,
    regular meetings between themselves and their LMSs, and
    having their LMSs serve on key school committees.

At the elementary level, schools averaged better test results where there were:
    LMSs who believed that their principals and teachers understand their roles as school leaders, curriculum designers, administrators (in the case of principals), and teachers (in the case of teachers);
    teachers who reported initiating instructional collaboration with LMSs and who believed that they teach to information literacy standards better when they engage in such collaboration; and
    both LMSs and teachers are more familiar with the document that correlates information literacy and academic standards.

Next Steps

After extensive evaluation and analysis of the survey results and the potential capacity for the library media center to play a more integral role in raising student achievement, members and officials in the AIME organization will take the following actions:
    • In the next three months AIME will assemble state and national educators and civic leaders to a summit to draft a measurable vision of how media programs prepare students to be successful on mission-critical measures: fluency in literacy and numeracy, communication, information gathering, analysis, synthesis and production, collaboration.
    • Within six months, AIME will share the vision created by the stakeholders for input and feedback to ensure that the drafted vision represents a shared view

that will inspire the development and work of media specialists across the state.

- Within one year, AIME will work with building, district, and state leaders to advocate for the structures and resources necessary to achieve the vision so that students are able to accomplish established goals articulated in the mission statements at the state and local levels.
- Based on the vision, AIME will provide scaffolds to raise the performance levels of media programs across the state to positively impact student achievement in the State of Indiana and grow the capacity of both media specialists and the effectiveness of the media center.

Executive Summary

The Indiana study—How Students, Principals, and Teachers Benefit from Strong School Libraries—was two studies in one. The first study involved a simplified replication of a research design employed in Colorado and more than a dozen other states to measure the impact of specific characteristics of school library programs. That initial phase of this project yielded predictable results that are consistent with the findings of earlier studies. The second study—and the chief focus—in this project explored more qualitative issues impacting test scores, most concerning the perceptions of library media specialists (LMSs), principals, and teachers. The findings of this study, while consistent with other previous research and conventional wisdom, make a start at expanding understanding of the nuances of the relationships between the three above-mentioned educator types and how those relationships benefit not only the participants, but also students.

What Helps Students Meet Standards @ your library

In Spring 2005, 440 schools responded to a survey of a stratified random sample of 924 school libraries. The survey included questions about library hours, staffing levels, collection size, networked technology, usage, and funding. These data were analyzed with ISTEP+ test scores on Reading/Language Arts, Mathematics, and combined results. Numbers and percentages of students eligible for the National School Lunch Program (i.e., poverty) and belonging to selected racial and ethnic groups were also included in the analysis to control for the impact of those factors.

The clearest results were for elementary schools. When elementary schools with stronger school libraries (more weekly staff hours, larger collections, more visits, larger budgets) were compared to those with weaker libraries, library variables were associated with proportional increases in third-grade test results of seven to eleven percent (6.8% to 11.0%). (See Chart ES-1.)
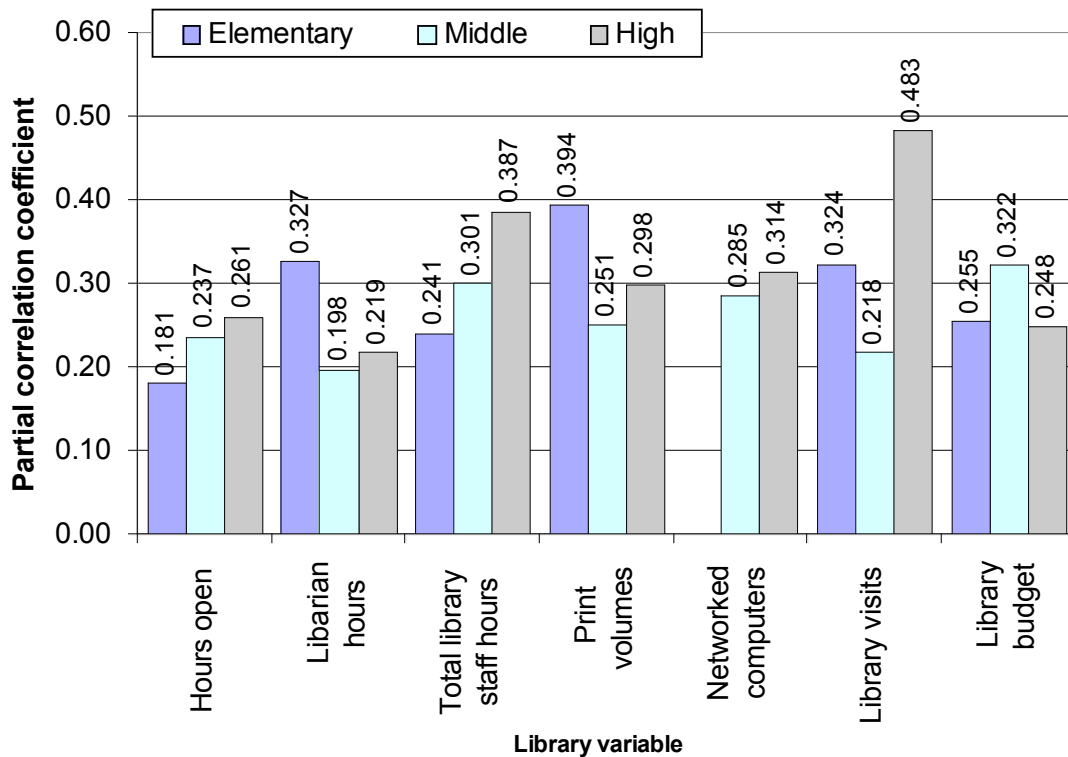
Chart. ES-1. Combined 3rd Grade ISTEP+ Results for Elementary Schools Above & Below Median on Library Variables
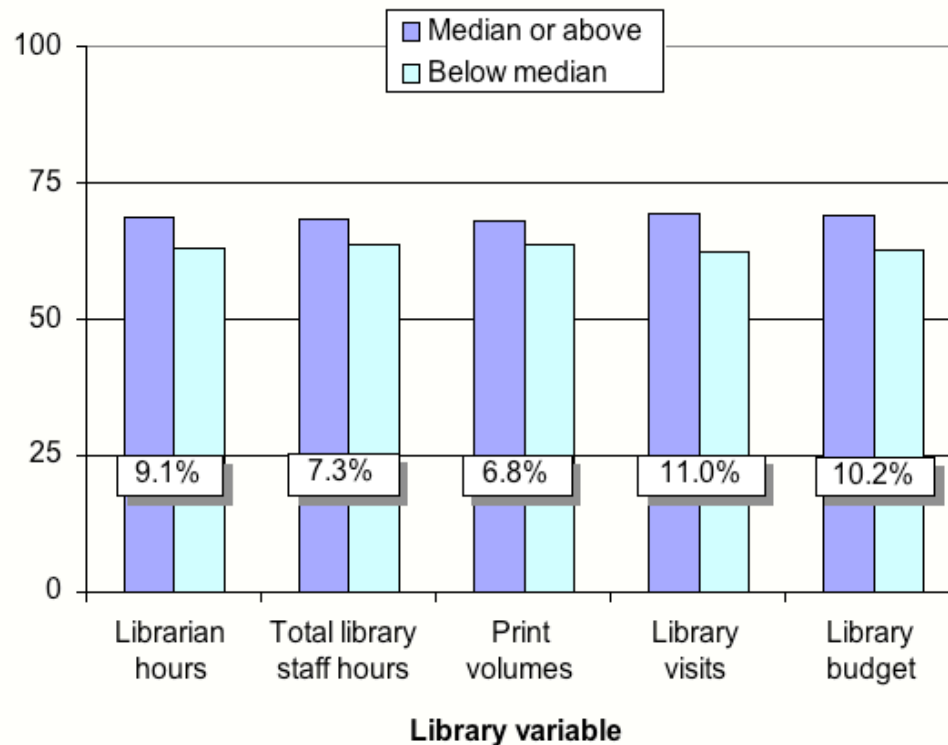
Note: Superimposed percentages represent the proportional difference between the first group and the second. For example: 68.98 / 63.23 = 1.091, indicating the first group's results are 9.1% better than the second group's results.

Across grade levels, schools tended to perform better on the ISTEP+ tests where there were better-staffed, better-stocked, and better-funded school library programs. Positive statistically significant correlation coefficients (a perfect correlation is 1.000) reached as high as .403 for high school library visits, .394 for elementary school library volumes, and .322 for middle school library budgets. Using partial correlation analysis, these findings took into account the influence of poverty as well as race and ethnicity, which otherwise obscure the impact of school library programs. (See Chart ES-2.)

Chart ES-2. Library Variables and ISTEP+ Results, Controlling for Poverty and Race/Ethnicity, by Grade Level

Legend: ■ Elementary □ Middle ■ High

Y-axis: **Partial correlation coefficient** (0.00 to 0.60)

X-axis: **Library variable**

Library variable	Elementary	Middle	High
Hours open	0.181	0.237	0.261
Librarian hours	0.327	0.198	0.219
Total library staff hours	0.241	0.301	0.387
Print volumes	0.394	0.251	0.298
Networked computers		0.285	0.314
Library visits	0.324	0.218	0.483
Library budget	0.255	0.322	0.248

How Teachers and Principals Benefit from Strong School Libraries

In Fall 2006, an LMS-nominated and self-selected sample of 293 library media specialists (LMSs), 99 principals, and 422 teachers responded to surveys. Survey topics included:

sources on which principals and teachers relied most to learn about libraries and LMSs;

LMS roles desired by principals, perceived by teachers, and attributed to both groups by LMSs;

how much selected LMS-related activities are valued by principals and how frequently they occur, according to LMSs and teachers;

assessments of how well teaching incorporates the state's information literacy standards, both when LMSs and teachers teach alone and when collaborating with each other; and

familiarity with, and perception of the influence on teaching of, *Correlation of Information Literacy Standards with Indiana's Academic Standards*.

Sources of Learning about Libraries/LMSs for Principals and Teachers

Principals and teachers learned about libraries and LMSs from a variety of sources. Predictably, on-the-job experience in their positions was the most frequently reported source (91.3% and 93.9%, respectively). Principals were also likely to rely on informal communication with their LMS (76.8%), their own experience as teachers (69.7%), and personal experience (51.5%--e.g., their own or their children's experience as students). Teachers also tended to rely on informal communication (79.2%) and personal experience (73.1%) far more often than other sources.

Value of Libraries/LMSs to Principals

Almost all responding principals reported considering it essential or desirable that the LMS and teachers design and deliver instruction collaboratively (99%), the LMS be appointed to key school committees (96%), and the LMS provides in-service opportunities to faculty (97%). Nine out of ten principals also reported considering both flexible scheduling of library access (94%) and regular meetings between the principal and the LMS (87%) as either essential or desirable. Almost two-thirds of principals (63%) considered it essential or desirable to address the instructional role of the LMS when interviewing prospective teachers at their schools.

Involvement with Libraries/LMSs Reported by Teachers

Three out of four responding teachers (73%) reported that their LMSs offer them instructional design resources at least weekly or monthly. Approximately half reported four activities happening at least weekly or monthly: classes visiting the library on a fixed or flexible schedule (52% each), teachers themselves taking the initiative to ask LMSs for resources, and teachers accompanying their classes to the library (52% each).

Involvement with Teachers Reported by LMSs

Four out of five responding LMSs reported the occurrence of four activities on at least a weekly or monthly basis: classes visit the library on a flexible schedule (83%), the LMS offers instructional resources to teachers (81%), teachers accompany their classes to the library (78%), and teachers ask the LMS for instructional design resources (78%). Three out of five reported such frequent occurrence of two activities: classes visiting the library on a fixed schedule (61%) and teachers asking for help in learning new information-seeking skills (57%). About half of LMSs reported that, on a weekly or monthly basis, they initiate collaboration on instruction with teachers (52%) and they provide in-service learning opportunities to teachers (48%).

Teacher and Principal Perceptions of LMS Roles

Among both teachers and principals, the most popular roles of LMSs were reading motivator, instructional support staff, teacher, and instructional resources manager. More than two-thirds of respondents in both groups identified their LMS with these roles. Other roles associated with their LMS by most teachers and principals included: in-service provider and school leader.

Assessments of Teaching to Information Literacy Standards

Nine out of 10 principals assessed their schools' teaching of information literacy in particular as excellent or good. When collaborating with each other, LMSs and teachers agreed with them in similar proportions. Still, more than four out of five LMSs and teachers self-assess their solo-teaching of information literacy as excellent or good. Similar, though somewhat more modest, results were found for independent learning and social responsibility standards.

Familiarity with & Influence of Correlation Document

In making school library programs relevant in Indiana's standards-based testing environment, a key document is *Correlation of Information Literacy Standards with Indiana's Academic Standards*. The gaps in familiarity with that document between LMSs, teachers, and principals are very dramatic. Predictably high percentages of responding LMSs indicated being either very familiar (33%), familiar (45%), or at least somewhat familiar (19%) with the document—leaving only three percent to claim being unfamiliar with it. In stark contrast, the unfamiliar/not applicable percentage was 66 percent for teachers and 37 percent for principals.

Impact of LMS, Principal, and Teacher Perceptions on ISTEP+ Results

Across grade levels, better-performing schools tended to be those whose principals placed a higher value on:

> LMSs providing in-service opportunities to classroom teachers (proportional increase of 29.5%),
> regular meetings between themselves and their LMSs (16.9%),
> having their LMSs serve on key school committees (10.2%), and
> collaboration between LMSs and teachers in the design and delivery of instruction (7.8%). (See Chart ES-3.)

At the elementary level, schools averaged better test results where there were:

> LMSs who believed that their principals and teachers see them as school leaders, curriculum designers, fellow administrators (in the case of principals), and fellow teachers (in the case of teachers);
> teachers who reported collaborating with LMSs more frequently at their own initiative, and who believed that they teach to information literacy standards better when they engage in such collaboration; and
> both LMSs and teachers were more familiar with the document that correlates information literacy and academic standards.

Both elementary and middle schools tended to perform better on tests where LMSs took the initiative, on at least a weekly or monthly basis, to provide their teachers with resources needed to design instruction.

Like elementary schools, high schools tended to have better test results where teachers reported that they initiate collaboration with LMSs on the design and delivery of instruction at least weekly or monthly.

Chart ES-3. ISTEP+ Results (3-Grade Average) by Value of LMS Activity to Principal