An Essential Connection

How Quality School Library Media Programs Improve Student Achievement in North Carolina

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Background

• Principal investigators: Dr. Robert Burgin and Dr. Pauletta Brown Bracy
• Financial assistance of North Carolina Library Association
• Other support from
  – State Library of North Carolina
  – NC School Library Media Association
  – NC Department of Public Instruction
• http://www.rburgin.com/NCschools2003
Methodology

- Based on the survey instrument from 2000 Pennsylvania study by Lance, Rodney, and Hamilton-Pennell
- 206 usable responses
- About half from elementary schools, one-fourth each from middle and high schools
Student Achievement

- Defined as the percentage of students who scored at or above achievement level III on …
  - End-of-grade composite reading exam (for elementary and middle schools)
  - End-of-course English I exam (for high schools)
School Performance

• We defined high and low performing schools as the top and bottom one-third of responding schools

• Mean student achievement:
  – High-performing schools = 87.9 %
  – Low-performing schools = 66.1 %
Library Staffing

• Defined as total paid school library staff hours in a typical week
• Significant correlation with student achievement ($r = 0.272$)
• Mean hours per week:
  – High-performing schools = 83.2
  – Low-performing schools = 64.6
• Mean student achievement:
  – “More staff hours” = 82.0 %
  – “Fewer staff hours” = 75.2 %
Hours Open

• Defined as hours open in a typical week
• Significant correlation with student achievement ($r = 0.196$)
• Mean hours open per week:
  – High-performing schools = 36.3
  – Low-performing schools = 28.7
• Mean student achievement:
  – “Open more hours” = 80.7 %
  – “Open fewer hours” = 76.0 %
Collection Age

• Defined as mean copyright date of the collection
• Significant correlation with student achievement ($r = 0.203$)
• Mean copyright date:
  – High-performing schools = 1988.0
  – Low-performing schools = 1985.6
• Mean student achievement:
  – “Newer collection” = 79.7 %
  – “Older collection” = 75.2 %
Expenditures on Print Materials

• Defined as annual expenditures per 100 students from the school budget
• Significant correlation with student achievement ($r = 0.196$)
• Mean expenditures per 100 students:
  – High-performing schools = $1,051$
  – Low-performing schools = $825$
• Mean student achievement:
  – “Larger book budget” = 80.2 %
  – “Smaller book budget” = 76.5 %
Expenditures on Electronic Access to Information

- Defined as annual expenditures per 100 students from the school budget
- Significant correlation with student achievement (r = 0.405)
- Mean expenditures per 100 students:
  - High-performing schools = $270
  - Low-performing schools = $109
- Mean student achievement:
  - “More electronic access” = 80.7 %
  - “Less electronic access” = 75.2 %
Online Periodicals

• Defined as whether library subscribed to online periodical services (e.g., FirstSearch, InfoTrac, and UMI)
• Significant impact on student achievement
• Percentage subscribing:
  – High-performing schools = 45.0 %
  – Low-performing schools = 22.0 %
• Mean student achievement:
  – With online services = 79.2 %
  – Without online services = 77.4 %
CD ROM Services

• Defined as whether library subscribed to CD ROM services (e.g., SIRS, Gale’s “Discovering…” series, NewsBank, and SuperTOM)
• Significant impact on student achievement
• Percentage subscribing:
  – High-performing schools = 31.1 %
  – Low-performing schools = 14.8 %
• Mean student achievement:
  – With online services = 78.9 %
  – Without online services = 77.6 %