

Effective School Libraries

Evidence of Impact on Student Achievement

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There must be very few school librarians today who are not aware of the considerable number of studies, particularly in the USA, that show a positive correlation between an effective school library and academic achievement. However, in our very busy days, it is not always easy to track down the research and analyse what it means in terms of our own practice. Over the past several months I have had the opportunity to do just that and, although none of what I shall summarise here is new, hopefully it will be useful to have it pulled together in one place.

Before delving into facts and figures, it is important to define why we need empirical evidence of the effectiveness of school libraries. Most discussions about them start from the position that they are a good thing, therefore they must be supported. However, for any argument to hold water, the starting point must instead be the needs of today's students in today's educational landscape. From there it is necessary to unpick how the school library contributes to the fulfilment of those needs and then to underpin the resulting conclusions with research evidence.

The characteristics of 21st century education have been articulated by many and continue to evolve. However, in order to achieve within this developing context and beyond, it is accepted that students need:

- Reading literacy
- Information literacy
- Technological literacy
- Skills for personal knowledge building
- Oral literacy and numeracy

Research evidence from the USA, Canada and Australia shows that where school libraries are resourced effectively and managed by a qualified librarian with educational expertise, all of the above are fostered and student academic achievement on standardised tests is higher than in schools where these conditions do not exist. Studies over the last 50 years have supported this conclusion, but increasing numbers of investigations and improved methodology over the past decade have brought new credence and immediacy to this positive relationship. While Australia and Canada have each conducted one substantial impact study and several smaller ones, since 2000 nineteen major studies have been completed across the United States. They are largely based on a quantitative research model developed by Keith Curry Lance, originally conducted in Colorado in 1993 and again in 2000. An important alternative approach was taken by Dr. Ross Todd in Ohio in 2004 where qualitative information was gathered from students and faculty. All of this research is summarised in *School Libraries Work!*,¹ and the information below from the

USA, unless otherwise stated, is taken from that document. It is important to note that the research methodology in all of these studies allowed for socio-economic issues and the results are not explained away by:

- Parents' lack of education
- Poverty
- Minority status
- Teacher-pupil ratio
- Per-pupil expenditure.

In identifying effective school library programmes, all of the studies assumed the presence of a qualified school librarian. In the USA, school librarians are generally known as school library media specialists and are granted credentials in individual states to fill the role of school librarians. Many states require a dual qualification in teaching and librarianship, and those that do not require instead a master's degree in librarianship with a specialisation in education. In Canada and Australia, teacher-librarians are dually qualified. In the UK, librarians qualify with a bachelor's degree and there is no specialist route for school librarians. An expertise in education must be acquired on the job and through CPD. Regardless of route, all school librarians need to:

- Be highly qualified professionals
- Be learning specialists
- Work collaboratively with teachers
- Be information mediators
- Teach the skills of information literacy within the context of the curriculum
- Be reading experts
- Inspire, encourage, create, and model high quality learning experiences
- Be leaders in schools, regarded on a par with teaching colleagues.

With all of this in mind, an examination of the research by theme, rather than by geographical region, may prove helpful. The following will look first at the impact of school libraries on reading, then on overall achievement, and finally at the impact of four factors that are key to achieving an effective school library. These are:

- Professional librarian with educational expertise
- Information literacy teaching
- Integration into the curriculum through librarian / teacher collaboration
- Support of heads and policy makers.

Issues of stock, spending, access and planning are also key and feature in the survey carried out by Information Management Associates in collaboration with the School Libraries Group of CILIP and published on 20 July 2010. Key findings include the greater likelihood that professionally qualified librarians will be more integrated into the school management structure than those who are not, that where there is a Schools Library Service it makes a positive difference to the effectiveness of the school library, and, worryingly but unsurprisingly, there is a general trend for school library budgets to be shrinking.

Reading

OECD

In 2000, an OECD (Organisation for Economic Co-operation and Development) survey of 265,000 students in 35 countries showed a consistent relationship between reading enjoyment and higher student achievement.² We all know that students need to be able to read in order to be successful, but the fact that enjoyment is significant will be new to many in education. The survey showed it to have positive associations not only with literacy but with maths and science results as well. The study also showed that reading enjoyment is more important for children's educational success than their family's socio-economic status.

Canada

In 2006 the province of Ontario conducted research with 50,000 students in over 800 publicly-funded elementary schools.³ The presence of a teacher-librarian in these schools was the single strongest predictor of reading enjoyment. Also, schools with teacher-librarians were shown to have higher reading scores by 8%. In the OECD survey of 2000, Canada was one of the highest scoring nations for reading enjoyment, but the Ontario study showed that over the period from 2001 to 2006 there was a steady decline in reported reading enjoyment. This was mirrored by a decline in the number of teacher-librarians during the same period due to cuts in funding.

USA

Delaware, 2005: Students in grades 3 – 5 saw the school library as strongly helping them to enjoy reading more.

Michigan, 2003: In elementary schools with the highest reading scores, teachers and students were four times as likely to visit the library on a flexible basis, compared to the lowest scoring schools.

Minnesota, 2003: 66.8% of schools with the highest reading test scores in grades 3 – 8 (ages 8 – 13) were where the librarian worked full time. Reading achievement was also related to increased school library programme spending.

North Carolina, 2003: School library programmes in elementary, middle and high schools had a significant impact on standardised reading and English tests.

Pennsylvania, 2003: The relationship between adequate staffing – at least one full-time credentialed school librarian and one full-time support staff – and reading scores was both positive and statistically significant.

Australia, 2006⁴

In a replica of the Ohio study led by Dr. Ross Todd, 81.1% of students in 46 schools across Queensland and Victoria said

that the library had contributed to their progress in reading and 81.4% indicated that the library helped them to enjoy reading.

Overall Achievement

USA

Delaware, 2005: 98.2% of students were helped in their learning process by the school library when they had access to a full-time school librarian, information literacy instruction, flexible scheduling and networked ICT.

Missouri, 2003: Students in schools with effective school library programmes score 10.6% higher than those in schools without effective school libraries.

New Mexico, 2002: Achievement test scores rise with the development of school library programmes.

Ohio, 2004: Todd's qualitative study of 13,123 students aged 8 to 18 from 39 schools revealed 99.4% of them believe the library and its services help them to become better learners. In addition, 879 faculty members saw the school library as key to learning.⁵

Texas, 2001: Library collections, staffing, technology and interaction with teachers and students all have a positive association with Texas Assessment of Academic Skills (TASS) at elementary, middle / junior high and high school levels.

Wisconsin, 2006: The impact of library media programmes explained a positive variance of 7.9% to 19% in reading and language arts performance at the high school level.

Canada

In addition to the positive reading results mentioned above in the 2006 Ontario study, reading enjoyment was strongly linked to overall student achievement.

Australia⁶

Students saw a clear link between the input of the school library and the grades they were awarded on projects and assignment work. 84.1% indicated that the school library had helped them learn how to work independently and over 90% said the library had helped them do their school work better. In all areas of this research, the impact of the school library and the librarian were higher in years 5 and 6 (10 to 12 year olds) than they were in years 11 and 12. Suggested reasons for this finding could be that skills are embedded in early years and practised independently in later years and that a crowded curriculum in later years leads to fewer opportunities for inquiry learning. This could lead to a strong argument that a greater emphasis on primary school libraries needs to be made.

Key Elements of Effective School Libraries

A. Professional school librarians

USA

A summary of the research shows that achievement scores rise 10% - 20% when:

- Number of professional librarians and support staff increase
- Quality information flows from the library into classrooms and homes

- Sustaining budgets keep the information rich environment current and of high quality
- School librarians promote reading
- School librarians collaborate with teachers
- School librarians teach information literacy
- School librarians are leaders in their schools.

Canada

In the 2006 Ontario study, the presence of a teacher-librarian was the single strongest predictor of reading enjoyment. At all levels, the research showed that the presence of a teacher-librarian correlated with improved student achievement in reading scores.

Australia

In the 2004 – 2005 study that replicated Todd's qualitative Ohio study, 99.4% of respondents (6,676) indicated that school library services, including the teacher-librarian, helped them with their learning both in and outside of school

England

In 2004, Ofsted surveyed 32 primary and secondary school libraries.⁷ Inspectors observed that the best school librarians had a positive impact both on teaching and on student learning. 'The impact of a knowledgeable and well qualified librarian on all aspects of the service, including the quality of the stock, should not be underestimated.' (p 18)

In 2001, Williams and Wavell produced a report for Re:Source, the Council of Museums, Libraries and Archives, which had been commissioned by the DfES to look at the impact of school libraries on student learning.⁸ The report noted that in England, pre-service training and CPD for both teachers and librarians should be considered to further both groups' understanding of learning in libraries. The report also noted the reluctance of many school librarians in England to engage in an instructional role and the delivery of information literacy. While some embraced this aspect of their work, others did not. Although this research is now dated and more emphasis has been placed on this aspect of a school librarian's work in recent years, it should not be ignored. It is still clear that school librarians in the UK are not required to have educational training and some are not able to access, for reasons of support or funding, CPD opportunities that can give them the curricular and pedagogical expertise that they need.

B. Information literacy teaching

USA – in addition to the summary above:

Alaska, 2000: The more often students received library/information literacy instruction from library media specialists, the higher their test scores.

Ohio: One aim of the 2004 Ohio study by Todd study was to unpick the school library's role in knowledge building. Student responses made clear that they saw the library as a dynamic rather than a passive source of support, teaching them how to conduct research effectively through:

- Identifying key ideas
- Evaluating, analysing and synthesising information
- Developing personal conclusions

'The study shows that an effective school library, led by a credentialed school librarian who has a clearly defined role in information-centered pedagogy, plays a critical role in facilitating student learning for building knowledge.'⁹

New Jersey, 2006:¹⁰ A study of how students learn through a library based guided inquiry unit revealed two levels of research outcomes. The first was an additive approach in which students sought more and more facts and their output remained at a descriptive level. The second was an integrated approach in which students were able to synthesise, build explanations, draw conclusions and reflect. While the latter is at a higher level, which may be down to student ability or assignment construction, both approaches led to greater subject knowledge and students' perceptions that they knew more as they progressed through the unit.

Australia, 2004–2005:

In the Queensland and Victoria studies,¹¹ the school library was identified as helping students to develop a focus and define learning tasks. Assistance with concept mapping software was particularly noted as helpful. Also, the teacher-librarian was instrumental in developing students' search strategies and teaching them how to select relevant information, learn to synthesise and acknowledge sources. Older students noted the importance of the library and the teacher-librarian in more advanced skill development and their resultant deeper understanding of curriculum content.

Canada, 2002:

Public Libraries in Edmonton reported that the decline of school libraries and teacher-librarian posts was resulting in a 30% increase in public library circulation, but that students were exhibiting a significant decline in research skills.¹²

England, 2004:

Ofsted Inspectors observed a great deal of information literacy teaching. However, the quality of many of the sessions was poor. The lessons were superficial and not integrated into the curriculum. The survey found many weaknesses in students' understanding of effective use of information. 'This limited their achievement in reading and, more generally, in learning across subjects'. Crucially, inspectors concluded:

- Schools did not think carefully enough about the skills pupils would need to continue with their studies beyond school, either in further and higher education or in the workplace. Stronger provision needed to be made for independent research and learning.¹³

C. Collaboration

USA

Ohio: A study undertaken through Kent State University over a three year period, 2003–2005, looked at the impact of instructional collaborations between classroom teachers and school librarians.¹⁴ Benefits for both parties were listed as development of professional skills and a more profound insight into pedagogical processes. Teachers noted greater understanding of information literacy skills and an appreciation of library resources. Students were motivated and focused, learned the content and improved their information literacy skills.

Indiana, 2007: In 2006, 293 school library media specialists, 99 principals and 422 teachers responded to surveys in *The Indiana Study* by Lance, et al.¹⁵ Results showed that both elementary and high schools averaged better test results when:

- Teachers and librarians collaborated and were both familiar with the state document¹⁶ that correlates information literacy and academic standards
- Principals valued the librarians and teachers saw them as fellow teachers.

Colorado, 2000: Elementary school students with the most collaborative teacher-librarians scored 21% higher on statewide reading tests than those with the least collaborative teacher-librarians.

England, 2004

Ofsted Inspectors noted that none of the schools observed felt that they were successful in involving all subjects in collaborative work with the school librarian in delivering information literacy skills. Collaboration was left to a proactive librarian and interested departments. Senior managers were not sufficiently involved in making this happen.

D. Support from Senior Managers and Policy Makers

All of the research studies noted above found that the support of head teachers was crucial to the development of effective school libraries at all levels. Government policy makers also played a huge role in establishing standards and recommending good practice that guided schools to commit to development.

Conclusion

In conclusion, several things need to be done to improve the development of school libraries in the UK. Librarians need to be trained to become school librarians, well versed in pedagogy and curricula. Only by developing an expertise in the educational arena will they be able to collaborate successfully with teachers, be valued as leaders in their schools and fulfill their potential to contribute to the academic success of their students. Teachers need to receive training about the skills of information literacy and the techniques of effective inquiry learning where students are challenged to engage with the glut of sources available to them, and to question, select, analyse and synthesise until they are able to discern paths to new understandings and knowledge construction.

Claims have been made that the research presented here is not applicable in England. However, an analysis of the data from the Ohio study and its replica in Australia, shows only a few percentile points difference in student responses to the 48 questions posed. This is despite curricular, pedagogical and cultural differences and would suggest that the conclusions of these studies are relevant to English education and should be considered seriously in the planning of future developments.

Underpinning all of the above are heads and policy makers who need a vision of what effective school libraries can do for the education of our young people. Headteachers need to be made aware of the impact effective programmes can make on student achievement through spotlighting school libraries at their conferences and through their own training. Policy makers need more UK research to inform them and to give them substantive reasons to encourage development.

Armed with the evidence of international research, we can all hold meaningful conversations within our schools and work towards developing the vision that we know is achievable. Hopefully the findings of the School Library Commission, to be published in the autumn of 2010, and the results of current UK research, will help to chart a path forward and actions can be implemented that will bring about effective school library programmes in all of our schools.

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