

The background of the cover is a light yellow-green color with several faint, stylized leaf motifs scattered across it. Each motif consists of a stem with two leaves pointing upwards and to the right.

BRAIN FRIENDLY SCHOOL LIBRARIES

Judith Anne Sykes

 *Greenwood*
PUBLISHING GROUP

Brain Friendly School Libraries

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Judith Anne Sykes



Westport, Connecticut • London

Library of Congress Cataloging-in-Publication Data

Sykes, Judith A., 1957-

Brain friendly school libraries / by Judith Anne Sykes.

p. cm.

Includes bibliographical references and index.

ISBN 1-59158-246-6 (pbk. : alk. paper)

1. School libraries—Aims and objectives.
 2. Learning—Physiological aspects.
 3. Teacher-librarians.
 4. Information literacy—Study and teaching.
 5. School librarian participation in curriculum planning.
 6. Libraries and education.
 7. Brain.
- I. Title.

Z675.S3S956 2006

027.8—dc22 2005030843

British Library Cataloguing in Publication Data is available.

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Library of Congress Catalog Card Number: 2005030843

ISBN: 1-59158-246-6

First published in 2006

Libraries Unlimited, 88 Post Road West, Westport, CT 06881
A Member of the Greenwood Publishing Group, Inc.
www.lu.com

Printed in the United States of America



The paper used in this book complies with the Permanent Paper Standard issued by the National Information Standards Organization (Z39.48-1984).

10 9 8 7 6 5 4 3 2 1

To my favourite twenty-first-century learner, my daughter Michelle

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FOREWORD

Education is discovering the brain and that's about the best news there could be. . . . [A]nyone who does not have a thorough, holistic grasp of the brain's architecture, purposes, and main ways of operating is as far behind the times as an automobile designer without a full understanding of engines.

*Leslie Hart, Human Brain, Human Learning
(New York: Longman, 1985)*

Who is the twenty-first-century learner? The kindergarten child hugging a treasured copy of *The Very Hungry Caterpillar*? The teenager signing out six books and a video about the Holocaust? The first-year medical student, piled with materials on human anatomy? The auto mechanic viewing compact discs of variant engine components? The graduate education student writing a thesis on cooperative learning? The senior citizen scanning the Internet for the best travel destination? The twenty-first-century learner is all of these people, for to learn is to continue to “grow dendrites,” or build brain cells. It is what makes us human. Blockages to learning are blockages to the human experience. Learning is not “schooling”; it is not that factory model of institutions churning out product year after year.

Institutions, ingrained and cultural, find “change” hard to come by. Paradigms change over centuries, not overnight. The emerging twenty-first-century learner is the learner that successful businesses and corporations demand and describe as the independent, lifelong learner. This learner knows how to construct knowledge from information and ideas—how to interact with it, restructure it, create from it, communicate it, and reflect on it. And this learner, this human being, has a brain that has evolved to encompass these functions. When will our scholarly institutions catch up?

Libraries of all sorts, including those in schools and colleges, have long appeared to be traditional institutions, storehouses of information, and much of that storage primarily consists of printed books. These institutions are and have been wholly democratic—particularly public libraries where anyone can freely borrow materials and have access to great domains of knowledge. Public libraries have experienced subliminal changes

creeping into their institutions—coffee lounges, book study groups, art displays, Internet services. Indeed, some libraries are never closed. The brain, thirsty for knowledge, will seek out information sources such as the public library or the Internet. When students aspire to learn a trade or profession, they will find that college or university libraries support them. Thus school libraries have vital roles to play in supporting learning from the day students enter as young children. School libraries not only prepare students to use future institutions, real or virtual; they can support learners throughout their schooling journey.

A city without a public library system would be unthinkable, as would a university or college without similar services, so why do the youngest brains, children in schools, not deserve the same intellectual support? As education and library service evolves over time, so must the school library move from merely providing a storehouse of materials, no matter how carefully selected and presented, to becoming a brain friendly, inviting center for constructivist learning. As educators learn more about how the brain learns and what best feeds the neural networks, they must nurture our collective intellects with renewing school libraries to become the brain friendly core of the school. Rather than storehouses of materials, there is a need to reframe the picture of the school library as a learning laboratory—where the learner’s brain interacts with resources, both human and non-, and makes its own meaning and understanding of what it is the individual is studying or researching.

In this renewal process of slowly changing paradigms “teacher-librarians” are needed more than ever to fulfill an evolving and demanding role. Although documented in school library literature and graduate programs for at least twenty years, this role, practiced by many teacher-librarians, has not been practiced widely enough in some areas to preserve and grow the teacher-librarian profession. Indeed, many still wonder why a “teacher” is needed in a school library. A most thorough examination of competencies vital to this role was prepared in 1997 by the Association for Teacher-Librarianship in Canada and the Canadian School Library Association *Students’ Information Literacy Needs in the 21st Century: Competencies for Teacher-Librarians*. These competencies dictate that twenty-first-century teacher-librarians be continuous learner themselves and be seen as learning leaders in schools. This necessitates understanding, expertise, and practice of current knowledge in brain research and learning, flowing into what could be considered three major areas that make them invaluable.

First is the teacher-librarian’s leadership role as an *on-site staff developer*. Here is a person on a school staff who has teaching and librarian expertise and can serve as guide/mediator/facilitator for students and staff through the information age, applying best practices from brain research. To accomplish this, the teacher-librarian must see the philosophical base of his or her role as collaborative practitioner, team planner, and team teacher.

Second is the teacher-librarian’s role as *information literacy agent*, planning with teachers to lead students in authentic critical inquiry through

constructivist research skills and processes. And third is the teacher-librarian's role as *cultural emissary*, connecting students and staff with that latest and greatest novel, picture book, Web site, video, art print, and/or reference source.

The most important aspect of the teacher-librarian's role, and the one that needs to be articulated at every level of funding, is what it means for students. Learners from six to sixty deserve the services of a twenty-first-century teacher-librarian, who—with pedagogical knowledge of how the brain learns best—can link learners with meaningful, deep library learning experiences. Teacher-librarians are ready to make their school libraries more brain friendly and become leaders in what noted educator Pat Wolfe calls this “cognitive epoch.”

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PREFACE

What can a teacher-librarian learn from studying brain research? It is a question important to ask anyone in the field of education; however, owing to the vital leadership role of the twenty-first-century teacher-librarian, it is more important than ever to be aware of what scientists know about how learners learn so that the teacher-librarian can provide the resources and curriculum planning support that are key to having a successful and “in demand” brain friendly school library program.

Many educators still cling to traditional types of curriculum delivery, including the delivery of school library programs. How are information literacy skills and processes taught? Are library skills lessons being taught out of context or on an ad hoc basis using traditional teaching methods? How are students, from the youngest to the oldest, being introduced to the grand schema of culture and story that is our literature, poetry, drama, nonfictional writing, and more? This book suggests practical approaches and ideas to enable teacher-librarians to use brain compatible learning to make their school libraries and learning programs more brain friendly. Many educators are keen on what brain research is telling us but are unsure of how to approach or engage in it at the school level, including the school library. The purpose of this book is to present ways to link brain research to innovative, proven educational methods and principles.

The book was developed through the author’s experience of taking graduate courses on the topic and by the application of what was learned in various ways to improve practice in the instructional leadership roles held by the author, which have been many and varied: teacher, teacher-librarian, staff developer in school libraries, assistant principal, principal, author, and presenter. Brain research findings have enabled her to change her approach to teaching as well as the work she does with staff and in conducting workshops, either slowly or rapidly introducing effective brain friendly changes into the work and inspiring others to do so as well.

There is not enough time in the day or the year to implement many of the brain friendly ideas and projects possible once an educator delves into this brave new world of neuroscience. It is hoped that teacher-librarians will take what is presented here, read up on it, apply it to suit their situations, and have another tool to transform the school library as the indispensable learning center of the school—indeed, operating in tandem the way the human brain operates, as the center for “receptivity . . . [and] information processing” (Wolfe 2001).

Admittedly, there are many cutbacks in school libraries, most ironically in this age of exploding information. In some pockets of the world, school libraries fare better than others. Studies show that having successful, appropriately staffed school library programs contributes to an increase in student achievement. If the teaching staff is operating collaboratively with the library at the center of inquiry, like the “brain,” and the school library is an exciting place of authentic research, supporting learning and teaching for students and staff, a gateway to literature and the arts, it will not be seen as a “frill” or that “place down the hall to get a book for something.” When dollars are tight or programs are not seen as central, they will be eliminated. But imagine a human without the brain! Or without knowledge, information processing, experiences, memory, and emotion! These are the rudimentary tools of a strong school library program—teacher-librarians need to connect with human brains to maximize learning and further intellectualize the education process.

The first part of this book presents a sampling of influential background references, outlining key concepts relating to brain research and educational practice. It includes recent Web sites that will lead the teacher-librarian into a fascinating world of science and brain friendly educational practices. It is hoped that teacher-librarians will take a further look at the subject through using the resources mentioned and others that they discover, then go on to develop ways to use them with all the learners in their school.

The author contacted three prominent educational brain research/intelligence experts: Ellen Langer, Bob Sylwester, and Pat Wolfe. Their work is looked at more closely in additional chapters. Throughout this section of the book, suggestions are given for adapting brain research findings to teacher-librarians’ work in school libraries.

The second, third, and fourth parts of this book connect three commonly occurring themes in brain-based learning that could become the primary goals for transforming a school library into a brain friendly, innovative learning center. All themes use examples that focus on the role of the teacher-librarian—the collaborative teaching partner with the teachers—in the school in supporting the curriculum and student learning. Teacher-librarians could use these concepts with their teachers to build shared understanding of brain-based learning principles and the potential for powerful school library services and programs interconnecting with the classrooms. Suggestions are given throughout for using brain friendly principles in giving workshops to the staff or in collaborative

planning sessions to bring colleagues into the research and instructional planning. As teaching colleagues experience new ways of learning themselves and in working with the teacher-librarian, they will become more comfortable in using more brain friendly practices with students.

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ACKNOWLEDGMENTS

I would like to acknowledge the work and words of noted brain/intelligence experts Ellen Langer, Pat Wolfe, and Robert Sylwester. Through reading and contacts with them I was able to come to a deeper understanding of what brain research could mean for school libraries.

I would like to acknowledge the Calgary Board of Education, specifically the staff, students, and families at Belfast Fine Arts/Technology Learning Centre, where I have been honoured to be their principal. The support, encouragement, and inspiration I receive on a daily basis from this learning community is invaluable. I thank them and the district for believing in my work, working with me and guiding me, supporting me to continually “think out of the box” in developing innovative schoolwide and school library learning experiences for our wonderful students.

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INTRODUCTION

Picture a “brain compatible environment” as described by noted brain research educators Renate Nummela Caine and Geoffrey Caine in their book *Education on the Edge of Possibility* (1997):

[A] large open environment for up to 150 people, working together for several hours at a stretch. In this environment everyone is a learner and both young people and adults can be facilitators. . . . [In] the interior landscape . . . the furniture is reconfigurable, the reference materials are delivered on demand through networked interactive multimedia, and the place is constantly buzzing with activity. . . . The plaza provides for videotaping on location, has the capacity to simulate physical and computer-generated models of real-world projects, and promotes the use of concept-mapping software. Works of art can be downloaded, software is available to assist in literary text analysis, and provision is made for intimate small-group discussion. The plaza is guided by a team of about five teacher facilitators who move around and maintain a big picture of what is happening with the group as a whole. (50–51)

Does this sound a little bit like the environment you work in or dream of working in day to day in your school library as you advocate to develop strong school library programs? Actually, it is a description, accompanied by an architectural sketch, of a “Creative Learning Plaza” by a company called Creative Learning Systems in California. Upon discovering it in Caine and Caine’s book, the sketch looked startlingly familiar; at closer inspection I detected shelves of bookcases surrounding the “plaza.” Caine and Caine go on to say that such a plaza was funded for a school project in California a few years ago. They felt that it reflected what research shows a brain-based learning environment to be with brain compatible teaching in the facilitory mode; also they thought it might be the way schools of tomorrow may be organized. They state that teachers