

*Reference Skills for*  

---

*the School Library*  

---

*Media Specialist:*  

---

*Tools and Tips*  

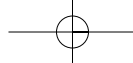
---

*Second Edition*

*Ann Marlow Riedling*



Professional Development Resources for K-12  
Library Media and Technology Specialists



Library of Congress Cataloging-in-Publication Data

Riedling, Ann Marlow, 1952-  
Reference skills for the school library media specialist: tools and tips  
/Ann Marlow Riedling.— 2nd ed.  
p. cm.  
Includes bibliographical references and indexes.  
ISBN 1-58683-190-9 (pbk.)  
1. School libraries—Reference services—United States. 2. Instructional  
materials centers—United States. I. Title.

Z675.S3 R54 2005  
025.5'2778—dc22

2004025097

Author: **Ann Marlow Riedling**

Linworth Books:  
Carol Simpson, Editorial Director  
Judi Repman, Associate Editor

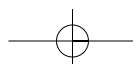
Published by Linworth Publishing, Inc.  
480 East Wilson Bridge Road, Suite L  
Worthington, Ohio 43085

Copyright © 2005 by Linworth Publishing, Inc.

All rights reserved. Purchasing this book entitles a librarian to reproduce activity sheets for use in the library within a school or entitles a teacher to reproduce activity sheets for single classroom use within a school. Other portions of the book (up to 15 pages) may be copied for staff development purposes within a single school. Standard citation information should appear on each page. The reproduction of any part of this book for an entire school or school system or for commercial use is strictly prohibited. No part of this book may be electronically reproduced, transmitted, or recorded without written permission from the publisher.

ISBN: 1-58683-190-9

5 4 3 2 1



# Table of Contents

---

<b>Acknowledgments</b>	vii
<b>Dedication</b>	vii
<b>Introduction</b>	ix
<b><i>Part 1: What Is Reference All About?</i></b>	<b>1</b>
Chapter 1: Reference and the School Library: An Overview	3
Introduction	3
Reference Services	3
The Reference Process	5
Reference and Information Literacy	6
Research Problem-Solving Processes and Models	8
Reference and the Technology Connection	12
Conclusion	12
Useful Web Sites	13
Chapter 2: Selection, Evaluation, and Maintenance of the Reference Collection	15
Introduction	15
What Do You Need?—The Selection Process	16
How Do You Know If It's Good?—The Evaluation Process	19
Collection Organization and Maintenance	21
Conclusion	22
<b><i>Part 2: Nuts and Bolts</i></b>	<b>23</b>
Chapter 3: Bibliographies	25
Introduction	25
Evaluation and Selection	28
Basic Sources	29
Webliography	31
Chapter 4: Directories, Almanacs, Yearbooks, and Handbooks	33
Introduction	33
Evaluation and Selection	35
Basic Sources	37
Directories	37
Almanacs	38
Yearbooks	39
Handbooks	40
More Examples of Online Directories, Almanacs, Yearbooks, and Handbooks	41
Webliography	43

Chapter 5: Biographical Sources	47
Introduction	47
Types of Biographical Sources	47
Evaluation and Selection	48
Basic Sources	50
Who's Who	50
Current Biographical Dictionaries	51
Author Sources and Literary Criticism	52
Retrospective Biographical Dictionaries	53
Conclusion	54
Webliography and Additional Examples of Online Biographical Resources	54
 Chapter 6: Dictionaries and Encyclopedias	 57
Dictionaries	57
Introduction	57
Evaluation and Selection	58
Basic Sources	60
English Language Dictionaries	60
Foreign Language Dictionaries	61
Historical Dictionaries	61
Slang and Dialect Dictionaries	62
Thesauri	62
Specialty Dictionaries	63
Webliography	64
 Chapter 7: Geographical Sources	 67
Introduction	67
Evaluation and Selection	68
Basic Sources	70
Current World Atlases	70
Historical Atlases	71
Thematic Atlases	71
Maps	72
Gazetteers and Other Geographical Sources	72
Additional Online Geographical Resources	73
Gazetteers	74
Atlases and Maps	75
Webliography	76

Chapter 8: Indexes and Abstracts; Online Periodical Databases	79
Introduction	79
Evaluation and Selection	80
Basic Sources	82
Online Periodical Indexes	82
Specialized Indexes	84
Webliography	86
<b><i>Part 3: The Art of Questioning</i></b>	<b>89</b>
Chapter 9: The Reference Interview	91
Introduction	91
The Patron—The Student	92
The Setting	93
You—The School Library Media Specialist	94
Questions and Questioning	95
Types of Reference Interviews	96
Conclusion	97
<b><i>Part 4: Reference and the Web</i></b>	<b>99</b>
Chapter 10: The Web in Today's Reference Services	101
Introduction	101
The Web and Reference Services in School Library Media Centers	103
Useful Web sites	105
<b><i>Part 5: Scenarios and Exercises for School Library Media Specialists</i></b>	<b>107</b>
Introduction	108
Special Notes to Instructors	109
Chapter 11: Scenarios and Exercises	111
Elementary School	111
Middle School	113
High School	115
<b>Appendix: Publisher Information</b>	<b>117</b>
<b>Glossary</b>	<b>125</b>
<b>Works Cited</b>	<b>129</b>
<b>Index</b>	<b>131</b>

# *Table of Figures*

---

Figure 1.1: The Reference Process: Five Basic Steps	6
Figure 1.2: The Information Literacy Process as It Relates to Student Learning	7
Figure 1.3: Overview of Three Research Problem Solving Models or Processes	8
Figure 1.4: Carol Kuhlthau's Information Seeking Process	9
Figure 1.5: Overview of the Big6™ Information Problem-Solving Model	10
Figure 10.1: Exercise: Search Engines	102
Figure 10.2: Exercise: Search Engines	104

# Acknowledgments

---

*Reference Skills for the School Library Media Specialist: Tools and Tips, Second Edition* has been one of the most exciting looks into the future that I have taken! I would like to thank Donna Miller and all of the anonymous editors for their support, advise, guidance, and insights into this new edition.

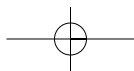
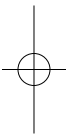
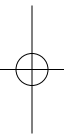
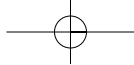
Most of all, I express my deepest gratitude to my family—my husband, daughter, father, and mother—my energy, hope, support, and encouragement. Without them this book would not have been possible.

To all of these people—and many others—I thank you.

# Dedication

---

I dedicate this second edition to my father (1921-1999), a true believer of libraries and a man of knowledge, wisdom, and love.



# Introduction

---

*Reference Skills for the School Library Media Specialist: Tools and Tips, Second Edition* is designed for courses that prepare college and university students studying for an undergraduate or graduate degree in school library media. The objectives of this textbook are to teach basic reference processes, sources, services, and skills, and to provide authentic school library media reference scenarios and exercises for the purposes of reflection and guided application in today's reference world.

Few textbooks have been written concerning reference sources and services that are geared specifically and appropriately for the school library media specialist. With the ever-changing role of school library media specialists, the area of reference has also seen major alterations and adjustments, as well as the infusion of innovations; in particular, new technologies. The aim of this book is to address the current issues and concepts of reference resources and services with regard to the modern role of school library media specialists. This text includes references to the most recent American Association of School Librarians and Association for Educational Communications and Technology (AASL and AECT) guidelines, *Information Power: Building Partnerships for Learning*. School library media specialists should be influential in fostering effective and efficient access, evaluation, organization, and use of information. They are in a prime position to provide this information by instructing students to become information literate in the global society in which we live. This textbook serves as a practical manual with current basic reference information along with practical examples and exercises that provide prospective school library media specialists with insight into the numerous situations that arise in school library media centers.

Since the first edition of this textbook in 2000, school library media specialists and library media instructors have prodded me with comments such as, "We need your textbook updated to explain what we really need to know regarding reference services and skills, and to give us realistic and usable exercises, ones that we can refer to for specific situations in the school library media center." "We need to know where to turn for assistance regarding reference sources and services now that we are several years into the 21st century. Everything has changed so much."

The overall look of the second edition has not altered greatly. The chapter titles remain the same, with the exception of the last four chapters. Chapter 10 is altered because technology issues have been incorporated within the previous chapters—rather than separating them into a specific chapter. Chapter 10 is replaced with, *The Web in Today's Reference Services*, providing tips and tools for Internet reference use. The final chapter now includes one scenario and one reference example each—for elementary, middle, and high school situations.

To make an analogy, the trunk of reference has not changed (reference categories, basic reference interviewing skills, and so forth). However, the branches have exploded with new leaves and flowers—the result of innovative, time-saving, inspiring reference technologies. As a result, additional, up-to-date Web sites are included as well as scenarios and exercises that represent our world today. The second edition of this text introduces new reference resources (print, nonprint, and Web-

based). Technology and reference sources and services change enormously within short time periods. To reflect these changes, all resources mentioned are current. All screen shots are up-to-date and functional (as of the writing of this book); all scenarios and exercises deal with today's school library reference dilemmas. In addition, an annotated Weblibliography has been added for many chapters, to make Web searching and reference services easier. Lastly, some chapters include "Useful Web sites," which supplement the material covered in the chapter.

*Reference Skills for the School Library Media Specialist: Tools and Tips, Second Edition* is divided into five parts:

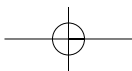
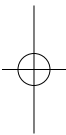
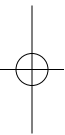
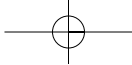
Part I: What Is Reference All About? discusses reference processes, sources, and services, focusing on the human side of reference work. Significant school library media reference terminology, techniques, and concepts are addressed. Additionally, research processes and models such as the Big6 by Eisenberg and Berkowitz, Information Seeking by Kuhlthau, and the Research Process by Stripling and Pitts are outlined. Selection, evaluation, and maintenance of the reference collection are also discussed in Part I—methods and sources of discovering the appropriate print and electronic reference materials for the school library media situation, as well as effective organization of the collection.

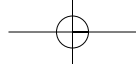
Part II: Nuts and Bolts speaks about the actual types of reference sources used in modern school library media centers, including bibliographies, directories, almanacs, yearbooks, handbooks, biographical sources, dictionaries, encyclopedias, geographical sources, indexes, and abstracts. Print and electronic sources are not addressed separately, but occur together throughout the chapters, as electronic resources are prevalent in today's reference world.

Part III: The Art of Questioning focuses on the reference interview. This valuable conversation between the student and the school library media specialist connects knowledge with information needs. Proper and effective communication is a critical component of school library media reference services.

Part IV: Reference and the Web discusses our evolving world and the incredible growth of knowledge, explosion of technology, and speedy reconfiguration of the boundaries that separate the myriad of academic fields and social conventions. Collectively, and with the use of technologies that have augmented this momentum of change, humanity generates enormous amounts of information. The abilities to access, comprehend, use, and evaluate information are the skills students must develop in order to function in our current world. Part IV specifically addresses Web use with regard to reference sources and services.

Part V: Scenarios and Exercises consists of practical scenarios and useful exercises—a look into the real world of school library media reference services. This chapter is divided into elementary, middle, and high school level examples. The situations and examples include both practical and philosophical aspects of reference services and sources for school library media specialists. These are meant to be read thoughtfully, pondered, and hopefully discussed with other prospective or experienced school library media specialists. Following each situation or exercise is a list of questions included for consideration and reflection. Expectantly, attentive conversations by students will arise from the readings through guided instruction; discussions that will search the very heart of reference services for school library media specialists.





*PART 1*

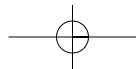
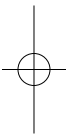
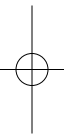
*What is*  

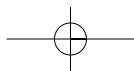
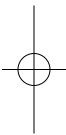
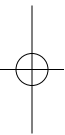
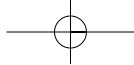
---

*Reference*  

---

*All About?*





# Chapter 1

# *Reference and the School Library: An Overview*

## Introduction

It is said that there exists a university library in the United States that has carved over its front entrance, “The half of knowledge is knowing where to find it.” I would like to add the following words: evaluate, organize, and use of information. School library media reference services, in the past, as now, assist students to get a better value from the library media collection than they would have on their own. Reference for school library media specialists is more than a skilled technique. It is a profoundly human activity ministering to one of the most basic needs of humans—the desire to know. Reference processes, sources, and services revolve around the basic principle of maximization of resources, which underlies all reference work.

## Reference Services

What the school library media specialist does with regard to reference services is fundamentally to answer questions. The school library media specialist must have the ability to then translate questions into terms that can be understood by aligning them with proper resources. This is known as reference services. As explained by Kenneth Whittaker, “The purpose of reference and information service is to align information to flow efficiently from information sources to those who need it. Without the [school library media specialist] bringing source and [student] together, the flow would either never take place at all or only take place inefficiently” (49). As a school library media specialist, you act as a mediator between the perplexed student and too much, or too little, information. As a mediator, the school library media specialist weighs the good, the bad, and the indifferent data to locate accurate sources to meet the information needs of students. The school library media specialist assists the students in

determining what they need out of the ever-growing masses of print and electronic information.

Successful reference services for school library media specialists consist of three components: 1) knowledge of the library media collection; 2) effective conversational skills (communication); and 3) competence in selecting, acquiring, and evaluating resources to meet students' needs. Corresponding with these three components are two basic functions of library media center services: 1) the provision of information; and 2) instruction or guidance in the use of information sources. The American Library Association explains that library media centers exist for the purpose of information and enlightenment. They are institutions with an educational [instruction] and informational [provision of information] purpose.

The accurate and appropriate provision of information will occur when the school library media specialist has a complete and accurate knowledge of the library media center collection, along with competence in selecting, acquiring, and evaluating that collection. School library media collections consist of a variety of resources; what is a resource? A resource is any source or material, regardless of form or location, which provides necessary answer(s). According to *Information Power's Learning and Teaching Principles*, the library media center should provide, "...access to the full range of information resources..." (AASL and AECT 58). It further states that the library media center should, "...offer a full range of instructional and informational resources that all students need to meet their curriculum goals" (AASL and AECT 90). (Proper selection and evaluation processes and techniques are discussed in the following chapter.)

Instruction or guidance in the use of information sources by the school library media specialist is dependent upon effective conversational (communication) skills. It has been suggested that the library media center is an agency of communication. Guidance is vitally important! The school library media specialist should never lose sight of the fact that, to the student, the question is only partly a technical requirement; at a deeper level that information is required to satisfy a basic cognitive need. (Effective communication and conversational skills and techniques are addressed in more detail in chapter nine.)

Instruction or guidance reference services teach or direct students to locate information themselves. It provides them with an understanding of reference tools and techniques, their correct usage, and how the library media center and information are organized. Instructional services also advise and assist students in the identification and selection of appropriate materials about a given topic. Instruction or guidance may occur with individuals or groups; however, the end result remains the same—educating students regarding access, evaluation, organization, and use of reference sources and services. It is important to remain aware of the fact that school library media specialists lead students to information (many times on their own), not knowledge. Students manipulate the information and construct knowledge from that information.

School library media specialists often provide orientations to inform students as to the organization and scope of the library media center's resources. This is a significant aspect of reference services for school library media specialists. Additionally, orientations are many times employed as a means of welcoming students and encouraging visitation to the library media center.

Reference instruction is also termed bibliographic instruction. Bibliographic instruction is an expression widely used and accepted in the modern library world. It is defined as any activity that is designed to teach students how to locate and use information, which goes beyond the physical boundaries of the school library media center. With the explosion of technologies that exist within, and yet beyond the walls of library media centers today, the term bibliographic instruction more accurately defines what school library media specialists do with regard to reference work and the education of today's students—teaching lifelong learning skills.

### *The Reference Process*

The day of seeking answers has not ended; only the process has changed. What is the reference process? Fundamentally, it consists of the entire transaction with the student in the course of which the reference work is carried out. Basically, it contains three primary elements: 1) information; 2) student; and 3) answer. These elements combine with five specific steps to create the complete reference process: 1) a need for information; 2) a question; 3) the search for information; 4) an answer or response; and 5) an evaluation. (Figure 1.1 on page 6 more thoroughly explains these five steps in the reference process.) The reference process may be simply explained as problem solving. It is the solution of the student's problem that is the real object of the process. As fixed as this process may appear, school library media specialists must keep in mind that each question is unique; therefore, each process will be unique as well. The reference process is merely an outline; what occurs within the text differs from situation to situation, student to student.

Figure 1.1: The Reference Process: Five Basic Steps

### ***The Reference Process: Five Basic Steps***

1. A Need for Information  
A request is made.
2. A Question  
What problem needs solving? What decision or choice needs making?  
What data and insight are required to shed light on the main question?  
What are the smaller questions that will help create an answer to the primary question? What does the student already know? What is missing?  
What does the student not know?
3. The Search for Information  
Based on the question(s), the student and school library media specialist develop research problem-solving strategies. Where might the best information lie? What sources are likely to provide the most insight with the most efficiency? Which resources are reliable? What steps will be required to protect against bias and develop a balanced view? Which sources are the most current?  
Location and identification of resources occurs.
4. An Answer or Response  
Information is sorted and organized; synthesis should occur.  
Are different resources required? Are additional resources required? Is the information provided complete? Does the student understand the information? Is the student information literate—learned how to learn?
5. An Evaluation  
Has the need(s) been met? Was the reference process complete or incomplete?

### ***Reference and Information Literacy***

In the technological, global society of today, information literacy cannot be overlooked. The essential philosophy surrounding school reference service is the encouragement of lifelong learning—or information literacy. The American Library Association describes information literate individuals as “...people who have learned how to learn. They know how to learn because they know how knowledge is organized, how to find information...They are people prepared for lifelong learning” (AASL and AECT 7). The abilities to access, comprehend, use, and evaluate information have become the skills people must develop in order to function in our current world. *Information Power’s Information Literacy Standards for Student Learning* explicitly outline what students should possess in order to be information literate in today’s society, “...accesses information efficiently and effectively...evaluates information critically and competently...uses information accurately and creatively...” (AASL and AECT 8). (Figure 1.2 on page 7 more completely explains the information literacy process as it relates to student learning.) School library media reference services play a particularly important role in fostering information literacy through the provision of information, instruction and direction.

Figure 1.2: *The Information Literacy Process as It Relates to Student Learning*

## ***The Information Literacy Process***

At the onset of the information literacy process, the student will:

### Identify a Need or Problem

- Be inquisitive about a wide range of topics, issues and problems.
- Recognize the need for accurate and complete information.
- Brainstorm to focus the topic and formulate research questions.

Once the topic is focused and the questions formulated, the student will:

### Seek Appropriate Resources

- Identify potential sources of information (print, electronic, community, etc.)
- Utilize effective research problem-solving strategies.
- Evaluate sources for appropriateness (reading level, biases, etc.)

After the resources have been identified and evaluated, the student will:

### Gather Information

- Read, view, and hear a wide variety of appropriate materials.
- Gain background knowledge about the topic.
- Begin to build in-depth knowledge regarding certain aspects of the topic.

As the material is being read, viewed, and heard, the student will:

### Analyze Information

- Skim and scan for keywords and major ideas.
- Determine the accuracy, relevance, and reliability of the information.
- Differentiate between fact and opinion, agreement, disagreement, etc.
- Identify biases, points of view, and cultural diversity.

After analyzing the information, the student will:

### Interpret and Synthesize Information

- Summarize and paraphrase the information.
- Draw conclusions based on collected information.
- Create new information to replace inaccurate, misleading information as required.
- Integrate new information with prior knowledge.
- Logically organize and sequence the information.
- Apply information into critical thinking and problem solving to complete the task.

Following the summarization of the information, the student will:

### Communicate Information

- Select a presentation format appropriate for the purpose and audience.
- Document sources using an appropriate format.

To properly assess the learning process and identify areas needing further development and practice, the student will:

### Evaluate Process and Product

- Conduct an on-going evaluation by revising, improving, and updating the process and product as required.
- Determine if the project or process met the defined need(s).
- Determine what new skills/knowledge was gained.

## *Research Problem-Solving Processes and Models*

Our complex, global society continues to expand at a rate beyond the capacity of individuals to comprehend. Access, evaluation, organization, and use of information are critical to ease the burden of change and to assist humanity in navigating its course towards the future. It is imperative that students possess the skills required to learn efficiently and effectively. By discussing research problem-solving strategies explicitly, it is more likely that these processes will be transferred to future research problem-solving situations.

*Figure 1.3: Overview of Three Research or Problem-Solving Models or Processes: Information Seeking, Big6 Information Problem-Solving, Research Process*

<b>Overview of Three Research or Problem-Solving Models or Processes</b>		
Information Seeking	Big6 Information Problem Solving	Research Process
<b>Kuhlthau</b>	<b>Eisenberg and Berkowitz</b>	<b>Stripling and Pitts</b>
Task initiation	Task identification	Choose broad topic
Topic selection		Overview of topic
		Narrow the topic
Formulation of focus	Information seeking strategies	Develop purpose
Exploration		Formulate question
		Plan for research
Collection	Location and access	Analyze, evaluate
	Information use	Evaluate evidence
Presentation	Synthesis	Make conclusions
Assessment	Evaluation	Create, present
		Reflection

The following three processes or models are widely accepted and used as problem-solving strategies in schools: Information Seeking by Carol Kuhlthau, the Big6 Information Problem-Solving Model by Michael Eisenberg and Robert Berkowitz, and the Research Process by Barbara Stripling and Judy Pitts. (Figure 1.3 on this page provides a brief overview of these three models.)

Carol Kuhlthau's six-stage model of the Information Seeking process conceptualizes the construction of meaning through active participation with information resources. This model encourages an in-depth focus that enables students to seek more relevant information and produce a product of higher quality. Kuhlthau states, "Living in the information age requires people to go beyond the ability to locate information and requires competence in seeking meaning and understanding. More is not necessarily better without skillful guidance from an insightful person [school library media specialist]" (*Learning* 708). (Figure 1.4 on this page displays this process as it relates to affective, cognitive, and sensorimotor learning.)

Figure 1.4: Carol Kuhlthau's Information Seeking Process: Affective, Cognitive, Sensorimotor Learning

<b><i>The Information Seeking Process: Affective, Cognitive, and Sensorimotor Learning</i></b>			
STAGE	Affective	Cognitive	Sensorimotor
Task Initiation	Uncertainty	General; Vague Thoughts	Recognizing one's information need
Topic Selection	Optimism	Scheduling or Planning	Identifying one's search problem
Exploration	Confusion; Frustration	Being informed about topic	Investigating scope of topic
Formulation	Ease accompanying clarity	Narrowing of topic focus	Formulating a search question
Collection	Sense of direction & confidence	Defining, supporting focus	Gathering notes
Presentation	Satisfied or Dissatisfied	More focused comprehension	Completing a report

One recent, well-known information problem-solving model is the Big6 approach by Michael Eisenberg and Robert Berkowitz. This process describes the six thinking steps one goes through any time there is an information problem to be solved. Eisenberg explains it this way, "'Brainstorm and narrow' is the essential process for information seeking strategies...[students should] brainstorm all possible information sources to meet the task, and then critically determine the best sources for completing the particular task" (22). (An overview of the Big6 problem-solving model is displayed in Figure 1.5 on page 10.)

Figure 1.5: Overview of the Big6™ Information Problem-Solving Model (Michael Eisenberg and Robert Berkowitz)

## ***The Big6 Information Problem-Solving Model***

### Task Definition

Define the problem.

Identify the information.

These questions should be asked prior to beginning the search:

What type of information do you need to solve your problem? Do you need current or historical materials? Do you need many or few sources?

### Information Seeking Strategies

Determine the range of possible resources.

Evaluate the different possible sources to determine priorities.

Determine what sources of information are available.

Be cognizant of the need to tailor the amount of information to meet specific needs.

### Location and Access

Locate sources.

Find information within sources.

### Use of Information

Engage.

Extract relevant information (requires the majority of time).

Note sources used; produce accurate citations.

### Synthesis

Organize information from multiple sources.

Present information in an appropriate format.

### Evaluation

Judge the process or product.

The *Research Process* developed by Barbara Stripling and Judy Pitts connects information handling and use with subject matter that is essential for learning to occur. Stripling and Pitts discovered that students have little prior knowledge of the information-seeking process, have fragmented understandings of subject knowledge, and that students do not understand that their information seeking knowledge depends on content knowledge and vice versa. As a result, school library media specialists should plan instruction to specifically assist students in attaining these skills. Learning experiences should be viewed holistically, recognizing that one area (i.e., information search process) can support other areas (i.e., content knowledge) and so forth. As Pitts noted, “There are many different, acceptable paths to the same end. Every...[student seemed] to have a different approach to working on a research assignment and organizing information. Each system worked well, but if everyone had been ordered to use one specific approach many students would have found themselves incredibly frustrated” (23).

As explained in *Information Power: Building Partnerships for Learning*, “Information literacy—the ability to find and use information—is the keystone to lifelong learning. Creating a foundation for lifelong learning is at the heart of the school library media program....The school library media specialist can use the information literacy standards for student learning to create and maintain a program for a broad learning community—students, teachers, administrators, parents, and the neighborhood—that will support lifelong learning” (AASL and AECT 1).

### ***The Nine Information Literacy Standards for Student Learning***

Taken from *Information Power: Building Partnerships for Learning* (AASL and ACET 8).

#### ***INFORMATION LITERACY***

Standard 1: The student who is information literate accesses information efficiently and effectively.

Standard 2: The student who is information literate evaluates information critically and competently.

Standard 3: The student who is information literate uses information accurately and creatively.

#### ***INDEPENDENT LEARNING***

Standard 4: The student who is an independent learner is information literate and pursues information related to personal interests.

Standard 5: The student who is an independent learner is information literate and appreciates literature and other creative expressions of information.

Standard 6: The student who is an independent learner is information literate and strives for excellence in information seeking and knowledge generation.

#### ***SOCIAL RESPONSIBILITY***

Standard 7: The student who contributes positively to the learning community and to society is information literate and recognizes the importance of information to a democratic society.

Standard 8: The student who contributes positively to the learning community and to society is information literate and practices ethical behavior in regard to information and information technology.

Standard 9: The student who contributes positively to the learning community and to society is information literate and participates effectively in groups to pursue and generate information.

Permission statement from ALA needed here

Numerous additional information problem-solving research models and processes have been developed and can be extremely valuable and useful in developing school library media reference services. Information problem-solving and critical thinking involve the application, analysis, synthesis, and evaluation of information to construct personal meaning. Without this ability, students cannot go beyond the mere collection of information in order to weave information threads together into the creation of knowledge. Our role as school library media specialists is to encourage the appropriate problem-solving research processes, as well as critical thinking, in order to lead students to information. Ultimately self-directed learners lead themselves to knowledge from that information.

### *Reference and the Technology Connection*

Less than two decades ago information sources were synonymous with print materials. It is now an anomaly to use only printed resources in the realm of reference work. Although reference services are changing in dynamic ways for school library media specialists, their essence—the provision of assistance to students seeking information—remains stable. The process of reference services is changing; the goal (the answer) remains constant. Technologies have made it possible to reach that goal faster and with more efficiency. The rapid growth and availability of information in electronic form is transforming the entire role of the school library media specialist and reference services as well. It has created a whole new range of options for finding and delivering information desired by students. With all the technologies available in our current, global world, why are reference services still needed? They are required to determine, among the tons of information, the ounce necessary and useful for the student. They are required to assist students in learning how to access, organize, evaluate, and use information—learn how to learn, become information literate. Ironically, technology has actually increased the student’s need for assistance and reference services. With this in mind, school library media specialists face an opportunity and challenge—not an easy, but a necessary one—in response to the technological, societal changes of our modern times.

### *Conclusion*

The three elements necessary for the reference process are the information/direction, the student, and the answer. One critical element concerning reference sources and services in today’s technological society is information literacy. School library media specialists should foster information literacy, defined as the ability to access, comprehend, use, and evaluate information. School library media specialists must help students learn how to learn, to become lifelong learners. Reference work for the school library media specialist is a diverse variety of activities that can be viewed under the two headings of: provision of information, and instruction or direction. What the school library media specialist does with regard to reference work is to answer questions, to assist in leading students to information. In order to efficiently and effectively conduct reference services, the media specialist should possess three things: knowledge of the collection, effective communication skills, and competence in selecting, organizing, and evaluating resources. The reference process consists of

five basic steps that should be used as a guideline when conducting reference services: a need for information, a question, a search for information, an answer or response, and an evaluation.

Reference sources and services are constantly changing in response to new societal and technological developments in our information-hungry society. There exists an increased importance and availability of information. There is no doubt that expanding electronic applications will continue to contribute to the importance of reference services. It is argued that new electronic resources will also lead to an expansion of the guidance and instructional role of school library media specialists in the years ahead. School library media centers and reference services are intended to enrich society and contribute to students' efforts to learn. The challenge is ours.

### Useful Web Sites

#### Information Inquiry for Teachers

<http://eduscapes.com/info/pitts.html>

*The REACTS Taxonomy (Recalling, Explaining, Analyzing, Challenging, Transforming, Synthesizing), developed by Barbara Stripling and Judy Pitts, focuses on critical thinking in the research process.*

#### Information Inquiry for Teachers

<http://eduscapes.com/info/big6.html>

*This Web site provides in-depth information regarding the Big6 and Super3, created by Michael Eisenberg and Robert Berkowitz.*

#### Information Power

<http://www.ala.org/ala/aasl/aaslproftools/informationpower/informationpower.htm>

*This site offers a wealth of information regarding Information Power: Building Partnerships for Learning, as well as the American Association of School Libraries (AASL).*

#### KidsSpace @ The Internet Public Library

<http://www.ipl.org/div/kidspace/browse/ref8000/>

*This site provides numerous links that can be helpful for all types of homework—math, science, English, and more.*

#### Kuhlthau's Information Search Process

<http://www.scils.rutgers.edu/~kuhlthau/Search%20Process.htm>

*This site provides a wonderful overview of the Information Search Process, including a PowerPoint presentation by Carol Kuhlthau.*

#### Library Spot

<http://www.libraryspot.com/>

*This Web site offers encyclopedias, maps, online libraries, quotations, associations, children's services, and much more.*

Online Resources for School Library Media Specialists: Web Gateways to Information

<http://www.school-libraries.org/resources/gateways.html>

*Via this site, online resources are selected and made available, as a way of assisting school library media specialists to make effective use of the vast resources of the Internet and World Wide Web.*

Ready, Set Go! Reference Sources on the Web

<http://www.infotoday.com/MMSchools/jan97mms/cybee197.htm>

*This Web site offers school library media specialists with some welcome relief—searching the Web far and wide for the very best ready reference locations, such as encyclopedias, calendars, and so forth.*

Reference Resources

<http://www.newschool.edu/library/libraria.htm>

*This site includes “Best Free Reference Sources for 2002,” from the American Library Association, including dictionaries, thesauri, telephone directories, Internet search engines, and much more.*

The School Librarian’s Desktop Reference

<http://www.delanet.com/~ftise/liblinks.html>

*This Web site is arranged by subject and includes Web sites, listservs, and search tools, as well as links to acquisitions, automation, cataloging, and so on.*

Tutorial for Info Power

<http://tip.uwyo.edu/intro1.htm>

*This site offers a helpful tutorial regarding information literacy, using the premise of Investigate, Search, Locate, Evaluate, and Use.*