

Colorado Students Achieve Power @your library

Standards for Information Literacy and School Library Programs



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Colorado Students Achieve Power

@your library™

Colorado State Library...

Enhancing quality library service by all libraries in support of educational achievement and equal access to information for all Colorado residents.

Colorado Department of Education...

Increasing achievement levels of students through high standards, assessments, and accountability.

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INTRODUCTION

Librarians know that quality school library programs lead to improved student achievement. The emphasis in the education community on measurable standards and assessments in all areas of learning provide an opportunity for library programs to enhance support for and involvement in the instructional process.

This handbook, created by a committee of skilled and enthusiastic practitioners, offers a foundation to move forward. From studies to standards, evaluations to resources, the handbook is a tool. It is designed to be used by librarians in collaboration with teachers to insure that students improve academic achievement through information literacy standards. It also supports librarians in their development of quality library programs.

Thanks to the members of the committee, and the staff that created this resource.

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Philosophy

QUALITY SCHOOL LIBRARIES ENHANCE STUDENT ACHIEVEMENT

Quality school libraries are a catalyst for increased student achievement and lifelong learning. An effective school librarian, in collaboration with the classroom teacher, empowers all students to become information literate

Information literacy is the ability to identify information needs, seek out resources to meet those needs, and then analyze, synthesize, evaluate, and communicate the resulting knowledge.

Information literate students:

- Are competent, independent learners
- Actively engage in the world of ideas
- Confidently solve problems
- Know what is relevant information
- Use technology tools to access information and communicate
- Operate comfortably in situations where there are multiple answers or no answers
- Have high standards for their work and use information ethically
- Create quality products
- Are flexible and adapt to change
- Are able to function independently and in groups

According to research, **quality school libraries** that are the highest performing incorporate these key elements:

- Teaching and learning
- Information access and delivery
- Program administration

These elements are demonstrated by:

- At least one full-time CDE-endorsed librarian
- Appropriate clerical and technology support staff
- Librarian and teachers collaborating to integrate information literacy and content standards
- Current resources which include books, magazines, videos, computer resources and online databases, etc., in the school library and other locations
- Supportive administrators who encourage teacher collaboration
- Flexible scheduling
- Adequate and consistent budget
- Well-designed, stimulating, accessible, welcoming, and comfortable environment
- Librarian who demonstrates professional leadership

The **quality school library district-level program** is led by a library director and staffed by qualified library professionals and competent library support personnel. The responsibilities of the director encompass many areas but can be classified as: instructional leader, facilitator/communicator, teacher, and administrator.

Quality School Library Programs

ELEMENTS OF QUALITY SCHOOL LIBRARY PROGRAMS

The following elements define a "quality school library program". Virtually any outstanding library program, designed to support student achievement and the learning process, demonstrates these qualities at a minimum.

ELEMENT 1: Learning and Teaching

The staff in a quality Colorado school library program:

- 1.1 Is essential to the educational program in the school, and is fully integrated in the school's instruction and activities.
- 1.2 Integrates information literacy standards throughout the curriculum.
- 1.3 Actively engages in collaborative teaching and planning practices.
- 1.4 Promotes, supports, and encourages reading, literacy, and learning in the school.
- 1.5 Integrates and utilizes technology that is available for learning and teaching.

ELEMENT 2: Information Access and Delivery

The staff in a quality Colorado school library program:

- 2.1 Provides access to information and ideas by acquiring current resources that support the curriculum, lead to improved CSAP and other assessment measures, and align with Colorado standards-based instructional practices.
- 2.2 Is structured to provide flexible access to resources in a facility that is inviting, accessible, stimulating, and conducive to learning for individual and group use.
- 2.3 Promotes and encourages the ethical use of information by students and staff.

ELEMENT 3: Program Administration

A quality Colorado school library program:

- 3.1 Is staffed with both professional and support staff to ensure full participation in instructional activities and support the school's standards-based learning practices.
- 3.2 Demonstrates strong curricular and instructional leadership by supporting the mission and goals of the school with collaborative and active involvement in the school's curricular goals.
- 3.3 Has a consistent budget and on-going administrative support to ensure a successful library program.

QUALITY SCHOOL LIBRARY PROGRAMS EVALUATION

Use this handy rating form to begin evaluating your current school library program. It gives you a quick overview of your strengths and areas for improvement.

Element 1: Teaching and Learning

	The staff in a quality school library program:	1	2	3
1.1	Is an essential, integrated part of the school's instruction and activities.			
1.2	Integrates the Colorado Information Literacy Standards throughout the			
	school's curriculum			
1.3	Actively engages in collaborative teaching and planning processes.			
1.4	Promotes, supports, and encourages reading, literacy, and learning in the			
	school.			
1.5	Integrates and utilizes technology to enhance teaching and learning.			

Element 2: Information Access and Delivery

	The staff in a quality school library program:	1	2	3
2.1	Provides access to information and ideas that support the curriculum, lead to improved scores on CSAP and other assessment measures, and align with Colorado content standards.			
2.2	Structures the program to provide flexible access to resources in a facility that is inviting, stimulating, accessible, and conducive to learning by both individuals and groups.			
2.3	Promotes and encourages ethical use of information by staff and students.			

Element 3: Program Administration

The quality school library program:		1	2	3
3.1	Is staffed with professional FTE proportional to enrollment, and support staff to allow full participation in instructional and standards-based learning practices.			
3.2	Has staff which demonstrates strong instructional leadership through active, collaborative involvement in the school's mission and goals.			
3.3	Is provided with an adequate and consistent budget, and ongoing administrative support.			

Evaluation Rating:

- 1 Does not meet criteria
- 2 Partially meets criteria
- 3 Fully meets criteria

Colorado Information Literacy Standards

COLORADO INFORMATION LITERACY STANDARDS

Based on and aligned with national standards, Colorado's information literacy standards are tailored to this state and its educational needs. They state clearly and concisely the standards that students must achieve to be "information literate". Similar in format to Colorado's other educational standards, the following nine standards offer information literacy concepts in a familiar manner. Each standard is presented along with other Model Content Standards to facilitate opportunities to incorporate instruction in information literacy along with other subject matter.

STANDARD 1

The information literate student accesses information efficiently and effectively.

STANDARD 2

The information literate student evaluates information critically and competently.

STANDARD 3

The information literate student uses information accurately and creatively.

STANDARD 4

The information literate student is an independent learner who pursues information related to personal interests.

STANDARD 5

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

STANDARD 6

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

STANDARD 7

The information literate student contributes positively to the learning community and to society and recognizes the importance of information to a democratic society.

STANDARD 8

The information literate student contributes positively to the learning community and to society and practices ethical behavior in regard to information and information technology.

STANDARD 9

The information literate student contributes positively to the learning community and to society and participates effectively in groups to pursue and generate information.

The information literate student accesses information efficiently and effectively.

Indicators:

- 1. Recognizes the need for information.
- 2. Recognizes that accurate and comprehensive information is the basis for intelligent decision-making.
- 3. Formulates questions based on information needs.
- 4. Identifies a variety of potential sources of information.
- 5. Develops and uses successful strategies for locating information.

Rationale:

The student who is information literate:

- Recognizes good information is central to day-to-day living.
- Knows when to seek information.
- Knows how to frame questions.
- Knows where to seek information.
- Knows how to structure a search to locate best information.

Alignment: Colorado Model Content Standards

Civics

- Standard 2: Students know the structure and function of local, state, and national government, and how citizen involvement shapes public policy.
- Standard 3: Students know the political relationship of the United States and its citizens to other nations and to world affairs.

Economics

Standard 2: Students understand how different economic systems impact decisions about the use of resources and the production and distribution of goods and services.

Foreign Language

Standard 2: Students acquire and use knowledge of other cultures while developing foreign language skills.

Geography

- Standard 1: Students know how to use and construct maps, globes, and other geographic tools to locate and derive information about people, places, and environments.
- Standard 2: Students know the physical and human characteristics of places, and use this knowledge to define and study regions and their patterns of change.
- Standard 4: Students understand how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation, and conflict.
- Standard 6: Students apply knowledge of people, places, and environments to understand the past and present and to plan for the future.

History

- Standard 1: Students understand the chronological organization of history and know how to organize events and people into major eras to identify and explain historical relationships.
- Standard 2: Students know how to use the processes and resources of historical inquiry.
- Standard 3: Students understand that societies are diverse and have changed over time.
- Standard 4: Students understand how science, technology, and economic activity have developed, changed, and affected societies throughout history.
- Standard 5: Students understand political institutions and theories that have developed and changed over time.
- Standard 6: Students know that religious and philosophical ideas have been powerful forces throughout history.

Mathematics

- Standard 3: Students use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning used in solving these problems.
- Standard 5: Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems.

Music

Standard 5: Students will relate music to various historical and cultural traditions.

Physical Education

Standard 3: Students demonstrate the knowledge of factors important to participation in physical activity.

Reading & Writing

- Standard 1: Students read and understand a variety of materials
- Standard 4: Students apply thinking skills to their reading, writing, speaking, listening, and viewing.
- Standard 5: Students read to locate, select, and make use of relevant information from a variety of media, reference, and technical sources.
- Standard 6: Students read and recognize literature as a record of human experience.

Science

Standard 1: Students understand the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigation.

Visual Arts

- Standard 4: Students relate the visual arts to various historical and cultural traditions.
- Standard 5: Students analyze and evaluate the characteristics, merits, and meaning of works of art.

The information literate student evaluates information critically and competently.

Indicators:

- 1. Determines accuracy, relevance, and comprehensiveness.
- 2. Distinguishes among facts, point of view, and opinion.
- 3. Identifies inaccurate and misleading information.
- 4. Selects information appropriate to the problem or question at hand.

Rationale:

The student who is information literate:

- Determines quality information by accessing for accuracy, validity, relevance, completeness, and impartiality.
- Uses logic and informed judgment to accept, reject, or replace information.

Alignment: Colorado Model Content Standards

Civics

Standard 3: Students know the political relationship of the United States and its citizens to other nations and to world affairs.

Economics

- Standard 1: Students understand that because of the condition of scarcity, decisions must be made about the use of resources.
- Standard 2: Students understand how different economic systems impact decisions about the use of resources and the production and distribution of goods and services.

Geography

- Standard 2: Students know the physical and human characteristics of places, and use this knowledge to define and study regions and their patterns of change.
- Standard 4: Students understand how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation, and conflict.
- Standard 6: Students apply knowledge of people, places, and environments to understand the past and present and to plan for the future.

History

- Standard 2: Students know how to use the processes and resources of historical inquiry.
- Standard 4: Students understand how science, technology, and economic activity have developed, changed, and affected societies throughout history.
- Standard 5: Students understand political institutions and theories that have developed and changed over time
- Standard 6: Students know that religious and philosophical ideas have been powerful forces throughout history.

Mathematics

- Standard 3: Students use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning used in solving these problems.
- Standard 4: Students use geometric concepts, properties, and relationships in problem-solving situations, and communicate the reasoning used in solving these problems.
- Standard 5: Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems.

Music

Standard 4: Students will listen to, analyze, evaluate, and describe music.

Reading and Writing

- Standard 1: Students read and understand a variety of materials.
- Standard 2: Students write and speak for a variety of purposes and audiences.
- Standard 4: Students apply thinking skills to their reading, writing, speaking, listening, and viewing.
- Standard 5: Students read to locate, select, and make use of relevant information from a variety of media, reference, and technological sources.

Science

- Standard 1: Students understand the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigation.
- Standard 5: Students know and understand interrelationships among science, technology, and human activity and how they can affect the world.

Visual Arts

Standard 5: Students analyze and evaluate the characteristics, merits, and meaning of works of art.

The information literate student uses information accurately and creatively.

Indicators:

- 1. Organizes information for practical application.
- 2. Integrates new information into one's own knowledge.
- 3. Applies information in critical thinking and problem solving.
- 4. Produces and communicates information and ideas in appropriate formats.

Rationale:

The student who is information literate:

- Manages information in a variety of contexts.
- Organizes and integrates information from various sources and formats.
- Communicates information and ideas for a variety of purposes.
- Designs and produces authentic products reflecting real world situations.
- Uses information to draw conclusions and develop new understandings.

Alignment: Colorado Model Content Standards

Civics

Standard 3: Students know the political relationship of the United States and its citizens to other nations and to world affairs.

Economics

Standard 2: Students understand how different economic systems impact decisions about the use of resources and the production and distribution of goods and services.

Foreign Language

Standard 2: Students acquire and use knowledge of other cultures while developing foreign language skills.

Geography

- Standard 1: Students know how to use and construct maps, globes, and other geographic tools to locate and derive information about people, places, and environments.
- Standard 4: Students understand how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation, and conflict.
- Standard 6: Students apply knowledge of people, places, and environments to understand the past and present and to plan for the future.

History

- Standard 1: Students understand the chronological organization of history and know how to organize events and people into major eras to identify and explain historical relationships.
- Standard 2: Students know how to use the processes and resources of historical inquiry.
- Standard 3: Students understand that societies are diverse and have changed over time.
- Standard 4: Students understand how science, technology, and economic activity have developed, changed, and affected societies throughout history.

Mathematics

- Standard 2: Students use algebraic methods to explore, model, and describe patterns and functions involving numbers, shapes, data, and graphs in problem-solving situations and communicate the reasoning used in solving these problems.
- Standard 5: Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems.

Music

- Standard 4: Students will listen to, analyze, evaluate, and describe music.
- Standard 5: Students will relate music to various historical and cultural traditions.

Reading and Writing

- Standard 4: Students apply thinking skills to their reading, writing, speaking, listening, and viewing.
- Standard 5: Students read to locate, select, and make use of relevant information from a variety of media, reference, and technological sources.

Science

- Standard 1: Students understand the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigation.
- Standard 5: Students know and understand interrelationships among science, technology, and human activity and how they can affect the world.

Visual Arts

- Standard 4: Students relate the visual arts to various historical and cultural traditions.
- Standard 5: Students analyze and evaluate the characteristics, merits, and meaning of works of art.

The information literate student is an independent learner and pursues information related to personal interests.

Indicators:

- 1. Seeks information related to various dimensions of personal well-being, such as career interests, community involvement, health matters, and recreational pursuits.
- 2. Designs, develops, and evaluates information products and solutions related to personal interests.

Rationale:

The student who is an independent learner:

- Actively and independently accesses, evaluates, and uses information of personal interest.
- Constructs meaningful personal knowledge and communicates it accurately and creatively.

Alignment: Colorado Model Content Standards

Civics

Standard 4: Students understand how citizens exercise the roles, rights, and responsibilities of participation in civic life at all levels - local, state, and national.

Foreign Language

Standard 2: Students acquire and use knowledge of other cultures while developing foreign language skills.

Geography

- Standard 2: Students know the physical and human characteristics of places, and use this knowledge to define and study regions and their patterns of change.
- Standard 6: Students apply knowledge of people, places, and environments to understand the past and present and to plan for the future.

History

- Standard 3: Students understand that societies are diverse and have changed over time.
- Standard 4: Students understand how science, technology, and economic activity have developed, changed, and affected societies throughout history.
- Standard 5: Students understand political institutions and theories that have developed and changed over time.
- Standard 6: Students know that religious and philosophical ideas have been powerful forces throughout history.

Mathematics

- Standard 3: Students use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning used in solving these problems.
- Standard 4: Students use geometric concepts, properties, and relationships in problem-solving situations, and communicate the reasoning used in solving these problems.

Music

- Standard 3: Students will create music.
- Standard 4: Students will listen to, analyze, evaluate, and describe music.
- Standard 5: Students will relate music to various historical and cultural traditions.

Reading and Writing

- Standard 1: Students read and understand a variety of materials.
- Standard 4: Students apply thinking skills to their reading, writing, speaking, listening, and viewing.
- Standard 5: Students read to locate, select, and make use of relevant information from a variety of media, reference, and technical sources.
- Standard 6: Students read and recognize literature as a record of human experience.

Science

- Standard 2: Physical Science: Students know and understand common properties, forms, and changes in matter and energy.
- Standard 3: Life Science: Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment.
- Standard 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.

Visual Arts

- Standard 4: Students relate the visual arts to various historical and cultural traditions.
- Standard 5: Students analyze and evaluate the characteristics, merits, and meaning of works of art.

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

Indicators:

- 1. Is a competent and self-motivated reader.
- 2. Derives meaning from information presented creatively in a variety of formats.
- 3. Develops creative products in a variety of formats

Rationale:

The student who is an independent learner:

- Seeks a variety of resources in different formats.
- Uses information to connect to larger ideas.
- Identifies and uses media that matches the purpose of the communication.

Alignment: Colorado Model Content Standards

Civics

- Standard 3: Students know the political relationship of the United States and its citizens to other nations and to world affairs.
- Standard 4: Students understand how citizens exercise the roles, rights, and responsibilities of participation in civic life at all levels local, state, and national.

Foreign Language

Standard 2: Students acquire and use knowledge of other cultures while developing foreign language skills.

Geography

Standard 6: Students apply knowledge of people, places, and environments to understand the past and present and to plan for the future.

History

- Standard 3: Students understand that societies are diverse and have changed over time.
- Standard 4: Students understand how science, technology, and economic activity have developed, changed, and affected societies throughout history.
- Standard 6: Students know that religious and philosophical ideas have been powerful forces throughout history.

Mathematics

- Standard 2: Students use algebraic methods to explore, model, and describe patterns and functions involving numbers, shapes, data, and graphs in problem-solving situations and communicate the reasoning used in solving these problems.
- Standard 4: Students use geometric concepts, properties, and relationships in problem-solving situations, and communicate the reasoning used in solving these problems.

Music

- Standard 4: Students will listen to, analyze, evaluate, and describe music.
- Standard 5: Students will relate music to various historical and cultural traditions.

Reading and Writing

- Standard 1: Students read and understand a variety of materials.
- Standard 5: Students read to locate, select, and make use of relevant information from a variety of media, reference, and technical sources.
- Standard 6: Students read and recognize literature as a record of human experience.

Visual Arts

- Standard 4: Students relate the visual arts to various historical and cultural traditions.
- Standard 5: Students analyze and evaluate the characteristics, merits, and meaning of works of art.

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

Indicators:

- 1. Assesses the quality of the process and products of personal information seeking.
- 2. Devises strategies for revising, improving and updating self-generated knowledge.

Rationale:

The student who is an independent learner:

- Evaluates and uses information processes and products.
- Reflects and critiques personal thought processes and products.
- Develops strategies for revision and improvement.

Alignment: Colorado Model Content Standards

Geography

Standard 6: Students apply knowledge of people, places, and environments to understand the past and present and to plan for the future.

History

Standard 2: Students know how to use the processes and resources of historical inquiry.

Mathematics

- Standard 3: Students use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning used in solving these problems.
- Standard 5: Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems.

Reading and Writing

- Standard 4: Students apply thinking skills to their reading, writing, speaking, listening, and viewing.
- Standard 5: Students read to locate, select, and make use of relevant information from a variety of media, reference, and technical sources.

Science

Standard 1: Students understand the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigation.

Visual Arts

Standard 2: Students know and apply elements of art, principles of design, and sensory and expressive features of visual arts.

The information literate student contributes positively to the learning community and to society and recognizes the importance of information to a democratic society.

Indicators:

- 1. Seeks information from diverse sources, contexts, disciplines, and cultures.
- 2. Respects the principle of equitable access to information.

Rationale:

The student who is socially responsible:

- Understands that access to information is basic to democracy.
- Seeks information from diverse viewpoints, scholarly traditions, and cultural perspectives to understand issues.
- Recognizes that equitable access to information is a fundamental right.
- Acknowledges contributions of various cultures and disciplines.

<u>Alignment</u>: Colorado Model Content Standards

Civics

- Standard 1: Students understand the purposes of government, and the basic constitutional principles of the United States republican form of government.
- Standard 4: Students understand how citizens exercise the roles, rights and responsibilities of participation in civic life at all levels local, state, and national.

Economics

Standard 1: Students understand that because of the condition of scarcity, decisions must be made about the use of resources.

Geography

Standard 4: Students understand how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation, and conflict.

History

Standard 2: Students know how to use the processes and resources of historical inquiry.

Reading and Writing

Standard 5: Students read to locate, select, and make use of relevant information from a variety of media, reference, and technical sources.

Science

Standard 1: Students understand the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigation.

The information literate student contributes positively to the learning community and to society and practices ethical behavior in regard to information and information technology.

Indicators:

- 1. Respects the principles of intellectual freedom.
- 2. Respects intellectual property rights.
- 3. Uses information technology responsibly.

Rationale:

The student who is socially responsible:

- Applies principles and practices that reflect high ethical standards.
- Recognizes the importance of equitable access to information.
- Respects principles of intellectual freedom.
- Respects the rights of producers of intellectual property.

<u>Alignment</u>: Colorado Model Content Standards

Civics

Standard 4: Students understand how citizens exercise the roles, rights, and responsibilities of participation in civic life at all levels - local, state, and national.

History

- Standard 2: Students know how to use the processes and resources of historical inquiry.
- Standard 6: Students know that religious and philosophical ideas have been powerful forces throughout history.

Reading and Writing

- Standard 4: Students apply thinking skills to their reading, writing, speaking, listening, and viewing.
- Standard 5: Students read to locate, select, and make use of relevant information from a variety of media, reference, and technical sources.

Science

- Standard 1: Students understand the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigation.
- Standard 5: Students know and understand interrelationships among science, technology, and human activity and how they can affect the world.

The information literate student contributes positively to the learning community and to society and participates effectively in groups to pursue and generate information.

Indicators:

- 1. Shares knowledge and information with others.
- 2. Respects others' ideas and backgrounds and acknowledges their contributions.
- 3. Collaborates with others, both in person and through technologies, to identify information problems and to seek their solutions.
- 4. Collaborates with others, both in person and through technologies, to design, develop, and evaluate information products and solutions.

Rationale:

The student who is socially responsible:

- Works successfully in the broad learning community.
- Uses information and ideas from a wide range of sources and perspectives.
- Collaborates within a group to identify, solve, and communicate information issues.

<u>Alignment</u>: Colorado Model Content Standards

Civics

- Standard 2: Students know the structure and function of local, state, and national government and how citizen involvement shapes public policy.
- Standard 4: Students understand how citizens exercise the roles, rights, and responsibilities of participation in civic life at all levels local, state, and national.

Economics

Standard 1: Students understand that because of the condition of scarcity, decisions must be made about the use of resources.

Foreign Language

Standard 2: Students acquire and use knowledge of other cultures while developing foreign language skills.

Geography

Standard 6: Students apply knowledge of people, places, and environments to understand the past and present and to plan for the future.

History

- Standard 2: Students know how to use the processes and resources of historical inquiry.
- Standard 3: Students understand that societies are diverse and have changed over time.

Math

- Standard 3: Students use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning used in solving these problems.
- Standard 5: Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems.

Music

- Standard 4: Students will listen to, analyze, evaluate, and describe music.
- Standard 5: Students will relate music to various historical and cultural traditions

Reading and Writing

- Standard 2: Students write and speak for a variety of purposes and audiences.
- Standard 5: Students read to locate, select, and make use of relevant information from a variety of media, reference, and technical sources.

Science

Standard 1: Students understand the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigation.

Visual Arts

- Standard 4: Students relate the visual arts to various historical and cultural traditions.
- Standard 5: Students analyze and evaluate the characteristics, merits, and meaning of works of art.

STUDENT EVALUATION

Information Literacy Standard 1

The information literate student accesses information efficiently and effectively.

Assessment Guidelines:

- States overview of a topic.
- Connects ideas and other issues to a main topic.
- States more than one side to an issue.
- Indicates when information is complete or incomplete; accurate or inaccurate.
- Develops essential questions that go beyond facts and are thoughtful.
- Locates information using a variety of formats.
- Identifies and uses primary and secondary sources.
- Locates relevant information to answer research questions.

Information Literacy Standard 2

The information literate student evaluates information critically and competently.

Assessment Guidelines:

- Identifies fact-based information.
- Demonstrates that differing resources may have conflicting facts.
- Identifies accurate information by comparing and contrasting topic-related resources.
- Uses facts and opinions appropriately.
- Uses identification of point-of-view to assess validity of information.
- Identifies inaccurate or misleading information.
- Continually revises topics and research strategies as additional information is uncovered.

Information Literacy Standard 3

The information literate student uses information accurately and creatively.

Assessment Guidelines:

- Organizes information appropriately.
- Demonstrates understanding of essential ideas by using them effectively.
- Integrates new information, draws conclusions, and connects with prior knowledge.
- Develops strategies to solve information problems effectively.
- Selects the best format to communicate the information

Information Literacy Standard 4

The information literate student is an independent learner who pursues information related to personal interests.

Assessment Guidelines:

- Uses information literacy strategies for real-life situations.
- Applies information problem-solving skills to personal life.

Information Literacy Standard 5

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

Assessment Guidelines:

- Uses a variety of resources and formats for information and personal enjoyment.
- Reads many things.
- Reads regularly for pleasure.
- Extrapolates ideas from creative sources and applies to personal experiences.

Information Literacy Standard 6

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

Assessment Guidelines:

- Reflects on and revises work based on feedback.
- Sets personal criteria and checks quality of work.
- States personal standards of excellence.

Information Literacy Standard 7

The information literate student contributes positively to the learning community and to society and recognizes the importance of information to a democratic society.

Assessment Guidelines:

- Examines diverse opinions and points-of-view (i.e., culture, background, historical context, etc.) to develop and modify his own point-of-view.
- Shares materials.
- Returns materials on time and in useable condition.

Information Literacy Standard 8

The information literate student contributes positively to the learning community and to society and practices ethical behavior in regard to information and information technology.

Assessment Guidelines:

- Shows respect for and solicits others' ideas.
- Exercises personal rights and responsibilities for freedom of expression.
- Draws conclusions and states them in his own words.
- Cites information sources appropriately.
- Demonstrates responsible use of information technology.

Information Literacy Standard 9

The information literate student contributes positively to the learning community and to society and participates effectively in groups to pursue and generate information.

Assessment Guidelines:

- Contributes to the success of the group.
- Shows respect for others' points-of-view and ideas.
- Solves information problems in collaboration with others.
- Reflects on and evaluates his own and the group's work to improve content, delivery, and work habits.

Quality School District-Level Library Programs

QUALITY SCHOOL DISTRICT-LEVEL LIBRARY PROGRAM

The *quality school district-level library program* is led by a library director and staffed by qualified library professionals and competent library support personnel. The responsibilities of the director encompass many areas but can be classified as: instructional leader, facilitator/communicator, teacher, and administrator.

The *library director* serves as **instructional leader** by:

- Motivating and assisting librarians to develop exemplary programs which foster student achievement.
- Developing and implementing in-service education that incorporates information literacy standards and technology standards integrated within the curriculum and that fosters collaborative planning and teaching.
- Actively participating in leadership capacity in local, state and national library and educational organizations.
- Actively serving in curriculum development and implementation processes at the local, state and national levels.
- Promoting ethical use of information and technology through respect for intellectual property and compliance with appropriate laws and copyright guidelines.
- Advocating the principles of intellectual freedom which govern the right to read and access to information and ideas.
- Encouraging all building-level librarians' participation in professional development activities and organizations on the local, state and national levels.
- Initiating and implementing agreements which foster availability and accessibility of information through interlibrary cooperation and resource sharing.
- Providing leadership in planning and using existing and emerging instructional and information technologies in all aspects of the school district's curriculum.
- Modeling the application of appropriate research, knowledge of adult learning theory, program planning and evaluation, and curriculum development strategies to improved teaching and learning throughout the school district, and specifically within the library program.
- Successfully acquiring and administering funding from grants and other sources.

The *library director* serves as **facilitator/communicator** by:

- Working with the principal and librarian to ensure that the building's library program fosters student achievement and supports the educational process through well-defined and articulated program goals.
- Encouraging professional growth through opportunities for visitation, sharing, and mentoring with other high quality school libraries within and beyond the district.
- Developing and implementing effective publicity activities to promote library programs' successes, and impact of library programs on student achievement.
- Documenting and reporting compliance with law, accreditation, and board policies as appropriate.
- Promoting the library program with parents, volunteers, community, etc.

- Facilitating a District Library Advisory Committee which may include administrators, librarians, teachers, instructional technology staff, students, parents, and community members to assist in guiding the library program.
- Staying abreast of new developments in library, technology, instructional strategies, and research; and apprising district and school administrators of the potential impact of same.
- Identifying information skills inherent in specific curricular areas and assisting administrators and teachers in utilizing the library to help students learn these skills.

The *library director* serves as **administrator** by:

- Developing effective plans and processes to provide library programs which support the philosophy, goals, and objectives of the district.
- Promoting equitable and flexible access to information, ideas, resources, and services both within and beyond the district.
- Evaluating, in collaboration with faculty, administrators, instructional technology staff, and library professionals, the instructional impact of the library program on student achievement.
- Developing, in conjunction with technology and curriculum leaders, the District Information Literacy and Technology Plan.
- Building consensus among administrators, teachers, instructional technology staff, and library personnel to support library program goals that are an integral part of the educational program of the district.
- Developing, articulating, and implementing a collection development policy which maximizes the support of the curriculum through the purchase of current and relevant materials.
- Using effective management principles to develop and administer the district library program, including but not limited to technical services (cataloging, acquisitions), video library, professional library and other specialized collections, preview/pre-purchase approval process, production services, television and computer-assisted instruction, telecommunications, networking and online data systems, personnel, and budget.
- Developing and allocating the district library budget based on instructional needs.
- Participating in curriculum development, facility planning, personnel staffing, budget and management committees, and task forces and teams at the administrative level.
- Monitoring and implementing state and federal laws applicable to library program.
- Assisting in recruitment, selection, training, assignment, supervision, and evaluation of librarians and other library staff.
- Evaluating the impact and effectiveness of library programs at the district and building levels.
- Assisting planning committees and architects in the design of school libraries that support the instructional program and facilitate learning.
- Monitoring, assessing, and employing existing and emerging technologies for instructional and management applications.

Research

RESEARCH – QUICK NOTES

Supporting Quality School Libraries and Information Literacy in Colorado

ARE THERE RELATIONSHIPS BETWEEN LIBRARY EXPENDITURES AND TEST PERFORMANCES?

YES!

- CSAP reading scores of schools with well-developed libraries and library programs averaged 10-15% higher in 4th grade and 18% higher in 7th grade than schools with less developed libraries and library programs. (From Colorado Study, 2000)
- CSAP reading scores are 6-13% higher in 4th grade and 18-25% higher in 7th grade in schools that provide computer networks throughout the school building. These networks make the library holdings catalog available to all computers in the school building. (From Colorado Study, 2000)
- Research confirms that when readers are provided access to comprehensible and interesting reading material, they read more. (From S. Krashen, 1993)
- Increased recreational reading increases reading ability and literacy development. (From S. Krashen 1993)
- Students take more books out of school libraries that have more books and that stay open longer. (From Houle & Montmarquette, 1984, cited by S. Krashen)

DOES A LIBRARIAN'S ROLE IN A SCHOOL PREDICT TEST PERFORMANCE?

YES!

- CSAP reading scores in schools where librarians collaborated with classroom teachers were 8% higher in 4th grade and 18-21% higher in 7th grade than in schools where librarians and classroom teachers did not collaborate. (From Colorado Study, 2000)
- CSAP scores were 13-22% higher in schools where library flexible scheduling is in place as compared with schools that did not have library flexible scheduling. (From Colorado Study, 2000)
- High school students did more reading when their teachers took them to school libraries more often than those that did not go the school library as frequently. (from McQuillan & Au, 2001, cited by S. Krashen)

IS THERE RESEARCH THAT CONSIDERS "COMMUNITY DIFFERENCES" IN LINKING LIBRARIES AND STUDENT ACHIEVEMENT?

YES!

How School Librarians Help Kids Achieve Standards: the Second Colorado Study, looked at the following differences. None affected the outcome of the CSAP scores in relation to the impact of the school library. Eight percent of assessment scores can be attributed to having a good, quality library and staff in a school. Community differences examined in the research included:

- Community differences (high adult education attainment or low numbers of poor and minorities).
- Per pupil spending.
- Teacher characteristics: i.e. experience or salary.

DOES RESEARCH SHOW WHAT QUALITY LIBRARY MEDIA PROGRAMS NEED TO MOST EFFECTIVELY PROMOTE STUDENT ACHIEVEMENT?

YES!

- Budgets that support acquisition of curricula based materials and recreational materials in various formats
- Professional librarians supported by paraprofessional and clerical staff.
- Time for librarians and teachers to work together in instructional process.

DOES SCHOOL LIBRARY RESEARCH AGREE ON HOW ACTIVE INVOLVEMENT OF THE LIBRARY MEDIA PROGRAM IN THE SCHOOL EFFECT STUDENT ACHIEVEMENT?

YES!

- School librarians can and do exert a positive effect on academic achievement.
- Principal support of the library program and teacher collaboration with librarians is critical to making the school library program an integral part of teaching and learning.
- For the librarian to be a pivotal player, support staff is essential.
- The librarian has a teaching role—both as co-teacher of information literacy to students and as an in-service trainer of teachers.
- Library programs that contribute most strongly to academic achievement are those with the
 technology necessary to extend access to information resources beyond the library media center
 to classrooms and labs throughout the school.

RESEARCH-BASED PRACTICES SUPPORTING ELEMENTS OF QUALITY SCHOOL LIBRARY PROGRAMS

ELEMENT 1: Learning and Teaching			
ELEMENTS OF A QUALITY LIBRARY PROGRAM	Supporting Research:		
1.1 Library Program (LP) is essential to the educational program in the school and is fully integrated into the school's instruction and activities.	 For school library programs to be successful agents of academic achievement, information literacy must be an integral part of the school's approach to both standards and curriculum.¹ Regardless of the level of librarian staffing, the more library staff time devoted to teaching library/information literacy skills, cooperative planning with teachers, and providing in-service to teacher and other staff, the higher the test scores.² Frequency of library use has been positively linked to student achievement scores³ 		
	Why this is necessary for student achievement.	How this can be achieved.	
IMPACT and IMPLEMENTATION of Element 1.1	 In order for students to be creators of knowledge, informed decision-makers, and life-long learners, they must: Become effective users of ideas and information; Use information skills and the information literacy process to make connections between content areas; Learn strategies to enable them to construct their own meaning from information resources, and allow them to gain information to solve problems related to lifelong information needs. 	The LP supports the approved Colorado curricular standards, as well as the mission, goals, and objectives of the school district. The librarian: Acts as a master teacher, technology planner, and collaborator with other members of the school community to design, and deliver student learning experiences that focus on authentic learning, information literacy, and mastery of the curricula; Functions as a member of the school-wide planning team; Articulates to all members of the learning community the unique roles and responsibilities of the library program in ensuring student achievement.	
1.2		Students learn research/information literacy skills at a higher level when instruction is integrated into content curriculum. ⁴	
Information literacy standards are integral to and integrated with the curriculum.	ou doubt to integrated into conte		

	Why this is necessary for student achievement.	How this can be achieved.
IMPACT and IMPLEMENTATION of Element 1.2	In order to become responsible for their own learning throughout life, students must achieve intellectual integration of information literacy skills, which includes: selection, use, communication, analysis, synthesis, organization, and evaluation of ideas and information.	 Participates regularly in building, district, and grade-level curriculum development to ensure that information literacy skills are integrated into all aspects of the classroom curriculum; Ensures that students have access to appropriate and current resources for creating and communicating new knowledge.
1.3 The LP promotes collaborative teaching and planning practices.	 computation, science, problem so librarians participate on teaching to the development of student computations and the development of student computations. The development of student computations are development of student computations. 	petence in research and study skills is on the curriculum through cooperative—the teacher and the librarian. 6 orarians spend more time teaching
	Why this is necessary for student achievement.	How this can be achieved.
IMPACT and IMPLEMENTATION of Element 1.3	Students need active, authentic learning experiences that weave together content-area goals and information literacy skills so that they will be able to work effectively in the collaborative model necessary for successful results.	 The librarian specialist: Demonstrates current knowledge regarding learning and teaching; Works with teachers to jointly plan, teach, evaluate, and assess units that integrate information literacy skills into the content areas; Collaborates with teachers, staff, and others to integrate information literacy competencies throughout the learning and teaching process; Works with administrators and staff to establish a school structure that supports flexible scheduling and similarly creative uses of time.
1.4 The LP promotes, supports, and encourages reading, literacy, and learning in the school.	 More free voluntary reading result writing style, vocabulary, spelling Using [computer-based literacy postudent academic achievement at Access to large book collections is libraries affects achievement in results. 	rograms] had a positive effect on nd attendance rates. ¹⁰ n comfortable and friendly school

	Why this is necessary for student achievement.	How this can be achieved.
IMPACT and IMPLEMENTATION of Element 1.4	Students who learn to select, use, and appreciate books, videos, films, electronic resources, and other creative forms of expression as sources of enjoyment and information will be informed, well-rounded citizens who are able to effectively communicate their positions and concerns.	The librarian: Assists students in selecting, accessing, evaluating, and using appropriate information resources to meet their recreational and informational needs; Is an advocate inside and outside of the school for reading and for literacy in print, graphic, and electronic formats.
	T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
1.5		on student achievement, attitudes
Integrates and utilizes technology that is used for learning and	network) is integrated into the libr reading test scores. ¹³	nternet, access to statewide library ary program, students earn higher
teaching.	well as assist individual students.	ships and technology integration as
		nto the classrooms, labs and other
	Why this is necessary for student achievement.	How this can be achieved.
IMPACT and IMPLEMENTATION of Element 1.5	Student learning is enhanced through the use of technology as a tool to facilitate: • The creation and communication of new knowledge; • Individual, small group, and class research; • Learning by students with diverse physical, learning, developmental, and intellectual abilities; • Development of life-long learning skills.	 Provides leadership in the evaluation, selection, and appropriate application of instructional technologies; Provides instruction in the use, evaluation, and synthesis of information and information technologies inside and outside the library; Provides opportunities for ongoing staff development in the areas of information literacy and technology as they relate to classroom instructional practices.

ELEMENT 2: Information Acc	ess and Delivery	
ELEMENTS OF A QUALITY LIBRARY PROGRAM	Supporting Research:	
The LP provides access to information and ideas that support the curriculum, lead to improved CSAP and other assessment measures, and align with Colorado standards-based instructional practices.	school library program is help frevaluating information. 16 Teachers assigned a wider variatoward the library, and rated the had online access to other libratopportunities. 17 A multi-national study of both meschools found that students in ready-access to books due to phad well-stocked school libraries added, and had teachers who eregularly. 18 Test scores increase as school information skills independently. Collection size is one of the moachievement, especially in reads	ety of projects, had a better attitude e library collection higher when they ries and interlibrary loan hore effective and less effective more effective schools tended to have proximity of libraries and bookstores, es to which books were constantly encouraged children to visit libraries librarians spend more time teaching 19 st important predictors of academic ling. 20 materials counts; students who have
IMPACT and IMPLEMENTATION of Element 2.1	Why this is necessary for student achievement. Students must learn basic information literacy skills—how to analyze, synthesize and evaluate information provided through content-area learning in order to solve problems and make informed decisions.	Information resources in the library program:

The LP is structured to provide flexible access to resources in a facility that is inviting, accessible, stimulating conducive to learning for individual and group use.	 the library and staff can be sche More than half of teachers in ar an atmosphere in which staff ar 	llaborative planning and instruction if eduled flexibly. 22 in Australian high school listed "create and students feel comfortable and at aspect of the librarian's role. 23
IMPACT and IMPLEMENTATION of Element 2.2	Why this is necessary for student achievement. Classes, small groups, and individuals need access to ideas, information, and resources at the point-of-need. For informed decision-making, students need access to information, ideas, and learning resources through the day, regardless of socio-economic status, or physical/intellectual abilities.	How this can be achieved. The librarian: Assures that board-adopted policies on collection development and acceptable use are followed in the school; Creates a schedule that provides maximum access to resources by students and staff; Provides full access to resources in a variety of formats using appropriate, available technologies.
2.3 The LP promotes and encourages the ethical use of information by students and staff.	development policy that addresSchools with written policy for the	where the library has a collection uses reconsideration of materials. he selection and reconsideration of n retaining questioned materials. he collection and retaining questioned materials.
	Why this is necessary for student achievement.	How this can be achieved.
IMPACT and IMPLEMENTATION of Element 2.3	Due to an increasing amount of information available to them, students must be given access to a variety of perspectives and diverse opinions in order to solve problems, create new knowledge on their own, and make life-long informed decisions. To demonstrate mastery of Colorado content standards, the ability to think and solve problems creatively is an essential aspect of the Colorado CSAP program. The resources and instruction provided through the library program facilitate this learning.	 The librarian: Demonstrates and teaches responsible and ethical use of information; Models and respects the principles of intellectual freedom; Has board-approved procedures in place for dealing with challenged materials; Collaborates with teachers in ensuring that information and information technology utilized in conjunction with classroom curriculum include considerations for ethical behaviors for use.

Program Adminis	stration	
ELEMENTS OF A QUALITY LIBRARY PROGRAM	Supporting Research:	
The LP is staffed with both professional and support staff to ensure full participation in instructional activities and support the school's standards-based learning practices.	 academic achievement in read Test scores tend to be higher of librarian rather than a part-time librarian at all.²⁷ Reading test scores increase of Libraries with more licensed struction improves services a achievement.²⁹ Student reading scores were hendorsed librarian supported by 	when there is: a librarian; a full-time e one, a part-time rather than no with increases in librarian staff hours. 28 raff spend more time locating materials with teachers. More involvement in and predicts student reading
		and expectations need to be defined. ³¹
IMPACT and IMPLEMENTATION of Element 3.1	student achievement. In order for students to be creators of knowledge, informed decision-makers, and life-long learners, they must make connections between the content taught to meet Colorado's educational standards and information skills that form the basis of the information literate student.	The school board and administrators create a climate and structure that supports standards-based instruction. The administrators, teachers, and librarians understand and implement: School-wide learning goals; The district's mission, goals, and objectives; A plan for information literacy and technology that incorporates established state standards.
The LP staff demonstrates strong curricular and instructional leadership by supporting the mission and goals of the school with collaborative and active involvement in the school's curricular goals.	 standards and curriculum com At both the elementary and seinvolved in the school and librathe level of collaboration. Collascores. Collaboration includes. 	Il librarians spend more time serving on mittees. ³² condary levels, the more the librarian is ary professional activities, the higher aboration has a direct impact on test regular meetings with administrators, ees, staff meetings, and meeting with

ELEMENT 3:

	Why this is necessary for student achievement.	How this can be achieved.
IMPACT and IMPLEMENTATION of Element 3.2	Students need to have skilled leadership modeled in such a way that fosters individual and collaborative inquiry and connects content and process knowledge.	 The librarian: Translates curricular goals into instructional strategies in the information-rich environment of the LP; Promotes and models information literacy as a basic component in authentic learning; Demonstrates connections between information-based learning and the skills students will need for success in subsequent grades, and throughout life; Takes a proactive role in the development of partnerships with administrators, teachers, students, and the community.
3.3		hool library materials has a correlation of economic status or education levels
The LP has a consistent budget and on-going administrative support to ensure a successful library program.	 in the community.³⁴ The principal plays a key role is school resource program.³⁵ 	in the development of an effective
	Why this is necessary for student achievement.	How this can be achieved.
IMPACT and IMPLEMENTATION of Element 3.3	Research shows that student achievement is affected by the amount of expenditures for current and appropriate resources.	 The librarian works with administration and staff to: Prepare a budget and use funds efficiently and effectively to support a quality library program; Ensure adequate funding that extends and renews the resources collection and technologies as needed; See that funding is allocated for professional development and capital outlay; Explore and obtain additional budget support to supplement the library program as needed; Determine annually what the average budget expenditures are statewide for library programs, and strives to keep pace with, and when possible, exceed the statewide averages.

- ¹ Pennsylvania Study, 2000 refers to: Lance, K. C., Rodney, M. J., Hamilton-Pennell, C. (2000). *Measuring up to Standards: The Impact of Library Programs & Information Literacy in Pennsylvania Schools*. Greensberg, PA: Pennsylvania Citizens for Better Libraries (Pennsylvania Department of Education). Complete study is also available at: http://www.lrs.org/html/school_studies.html in PDF format
- ² Colorado Study, 2000 refers to: Lance, K. C., Rodney, M. J., Hamilton-Pennell, C. (2000). How School Librarians Help Kids Achieve Standards: The Second Colorado Study. San Jose, CA: Hi Willow Research & Publishing.
- ³ Colorado Study, 1993 refers to: Lance, K. C., Welborn, L., Hamilton-Pennell, C. (1993). *The Impact of School Library Media Centers on Academic Achievement*. Castle Rock, CO: Hi Willow Research and Publishing.
- ⁴ Alaska Study, 1999 refers to: Lance, K. C., Hamilton-Pennell, C., Rodney, M. J., Peterson, L. A., Sitter, C. (1999). *Information Empowered: The School Librarian as an Agent of Academic Achievement in Alaska Schools*. Juneau: Alaska State Library.
- ⁵ Pennsylvania Study, 2000...
- ⁶ Colorado Study, 2000...; Martin 1997 as cited in Colorado Study, 2000...
- ⁷ Library Research Service, Colorado State Library. (1998-141). *Library Media Specialists & Technology Linked to Higher CSAP Test Scores*. Fast Facts: Recent Statistics from the Library Research Service (141).
- ⁸ Andwood, 1984; Carter, 1971; Coleman, 1982; Newcomb, 1968; as cited in Haycock, K. (1992). *What Works: Research About Teaching and Learning Through the School's Library Resource Center*. Seattle, WA: Rockland Press.
- ⁹ Colorado Study, 1993...; Bruning, 1994, as cited in Colorado Study, 2000...
- ¹⁰ Anderson, 1970; Charter, 1982; Corr, 1972; Guise, 1972; Hellene, 1973; Shields, 1977, Walker, 1982; as cited in Haycock, K. (1998). Leadership by Secondary School Principals. (What Works column). *Teacher Librarian*, Volume 26, Number 2 (Nov/Dec), page 32.
- ¹¹ Lumley, 1994, as cited in *Colorado Study*, 2000...
- ¹² Pennsylvania Study, 2000...
- ¹³ Alaska Study, 1999...
- ¹⁴ Koga and Harada, 1989
- ¹⁵ Todd, 1995; Bingham, 1994; Hara, 1997 as cited in Loertscher, D.V., Woolls, B. (1999). *Information Literacy: A Review of Research: A Guide for Practitioners and Researchers*. San Jose, CA: Hi Willow Research & Publishing.
- Aaron, 1975; DeBlauw, 1973; Gilliland, 1986; Gengler, 1965; Hastings, Tanner, 1963; Hutchinson, 1982; Todd,
 Lamb, McNicholas, 1993; Todd, 1995; as cited in *Colorado Study*, 2000...
- ¹⁷ Becker, 1970; Callison, 1979; Jodson, 1978; Nolan, 1989; Smith, 1978; as cited in Haycock, K. (1992). What Works...
- ¹⁸ Pennsylvania Study, 2000...; Colorado Study, 2000...; Alaska Study, 1999...
- ¹⁹ Donham van Deusen, J. D. (1996b). The School Library Media Specialist As a Member of the Teaching Team: "Insider" and "Outsider." *Journal of Curriculum and Supervision*, Volume 11, Number 3, pages 229-248.
- ²⁰ Krashen, S. D. (1993). *The Power of Reading: Insights from the Research*. Englewood, CO: Libraries Unlimited.
- ²¹ Paul, VanderZee, Fue, Swanson, 1996; cited in *Colorado Study*, 2000...
- ²² Barlup, 1991; Bustard, 1993; Hines, 1995; Holland, 1994; Lipscomb, 1993; McQuillan, 1997; as cited in Haycock, K. (1999). School Libraries and Reading Achievement (What Works column). *Teacher Librarian*, Volume 26, Number 3 (Jan/Feb), page 32.
- ²³ Sivi-Kachala, Bialo, and Langford, 1997 as cited in *Colorado Study*, 2000...
- ²⁴ Library Research Service, Colorado State Library, (1998-141)...
- ²⁵ Everhart, 1992; Donham van Deusen, J. D. (1996a). An Analysis of the Time Use of Elementary School Library Media Specialists and Factors That Influence It. *School Library Media Quarterly*, Volume 24, Number 2 (Winter), pages 85-92.
- ²⁶ Colorado Study, 2000...; Pennsylvania study, 2000...
- ²⁷ Bell and Totten, 1992; as cited in *Colorado Study*, 2000...
- ²⁸ Church, A. P. (1991). *The Impact of Information Access in Southside Virginia High School Library Media Centers*. ERIC document number ED344703. 13 pages.

³⁰ Pennsylvania Study, 2000...

³² McQuillan, J. (1998). *The Literacy Crisis: False Claims, Real Solutions*. Portsmouth, NH: Heinemann.

³⁵ Alaska Study, 2000...

²⁹ Postelwaite and Ross, 1992; as cited in Westat, Inc. (1998). *Literature Review: Assessment of the Role of School and Public Libraries in Support of the National Education Goals*. (Prepared for Office of Library Programs, U.S. Department of Education). Rockville, MD: Author.

³¹ Colorado Study, 1993...; Colorado Study, 2000...

³³ Bishop, 1992 and Fedor, 1993, as cited in Colorado Study 2000; Donham van Deusen, J. D. (1993). The Effects of Fixed Versus Flexible Scheduling on Curriculum Involvement and Skills Integration in Elementary School Library Media Programs. *School LibraryMedia Quarterly*, Volume 21, Number 3, (Spring), pages 173-182.; Donham van Deusen, J. D., & Tallman, J. I. (1994). The Impact of Scheduling on Curriculum Consultation and Information Skills Instruction: Part One: The 1993-94 AALS/Highsmith Research Award Study. *School Library Media Quarterly*, Volume 23, Number 1 (Fall), pages 17-25.

³⁴ Waters, D. (1994). New Technology and the Image of the School Library. Reprinted in *Sustaining the Vision: A Collection of Articles and Papers on Research in School Librarianship*, Edited by Laurel A. Clyde for the International Association of School Librarianship. Castle Rock, CO: Hi Willow Research and Publishing, 1996.

³⁶ Borowiak, 1983; Bracy, 1982; Chandler, 1985; Detty, 1981; Douma, 1973; Paysinger, 1983; Woods, 1977; as cited in Haycock, What Works, 1992.

Appendices

APPENDIX A

Standard 1:	AASL/AECT Information Literacy Standards Information Literacy The information literate student accesses information efficiently and effectively.	Colorado Information Literacy Guidelines Student as a Knowledge Seeker determines information needs develops information seeking strategies and locates information
Standard 2:	The information literate student evaluates information critically and competently	 acquires information analyzes information evaluates process and product
Standard 3:	The information literate student uses information accurately and creatively.	 organizes information processes information acts on information
	Independent Learning	Student as a Self-Directed Learner Student as a Quality Producer
Standard 4:	The information literate student is an independent learner who pursues information related to personal interests.	 voluntarily establishes clear information goals and manages progress voluntarily consults media sources
Standard 5:	The information literate student is an independent learner who appreciates literature and other creative expressions of information.	explores topics of interestidentifies and applies personal performance guidelines
Standard 6:	The information literate student is an independent learner who strives for excellence in information seeking and knowledge generation.	 recognizes quality and craftsmanship plans the quality product creates a quality product presents a quality product evaluates quality product
	Social Responsibility	Student as a Responsible Information User Student as a Group Contributor
Standard 7:	The information literate student contributes positively to the learning community and to society and recognizes the importance of information to a democratic society.	 acknowledges diverse ideas and incorporates them when appropriate evaluates product, process, and individual roles continuously respects principle of intellectual freedom
Standard 8:	The information literate student contributes positively to the learning community and to society and practices ethical behavior in regard to information and information technology.	 practices ethical usage of information and information sources recognizes the need for equal access to materials and resources maintains the physical integrity of information resources and facilities follows guidelines and etiquette when using electronic information resources
Standard 9:	The information literate student contributes positively to the learning community and to society and participates effectively in groups to pursue and generate information.	 helps group to determine information needs shares responsibility for planning and producing a quality product collaborates to determine relevant information offers useful information to the group, defends information when appropriate, and seeks consensus to achieve a stronger product clearly communicates ideas in presenting the group product

APPENDIX B

The Steps in the Research Cycle

Rationale:

The Research Cycle provides the steps needed to plan and conduct meaningful research. The Cycle emphasizes information problem-solving skills needed for success with the Internet and other information resources during each stage.

Exploration:

Read the steps of the Research Cycle listed below in order to see how a project should develop as a team exploration.

Step 1: Questioning

The student clarifies what new insight is required.

- What problem needs solving? (How do we protect the timber industry and the timber?)
- What decision or choice needs making? (Where should we hold the next Olympics?)
- What data and insight are required to shed light on the main question?
- What are the smaller questions which will help create an answer to the primary question?
- What does the student already know?
- What is missing?
- What does the student not know?

Step 2: Planning

The student takes the questioning and begins to develop information-seeking 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?
- How might technology (database? word processing file?) be employed to collect and organize findings once the gathering begins?
- How might such devices be structured to support powerful sorting, sifting, and synthesis later on?

Step 3: Gathering

At this point, the various sources, one of which might be the Net, are used. If the planning has proceeded well, the time on the Net may be limited by direct hits produced by careful selection of good information sites. It is essential that students save good information as they gather, anticipating the next stage in the way they begin to set aside the best insights in a database or word processing file reserved for information gems of various kinds.

Step 4: Sorting

The student may gather as many as 400 pages with each brief visit to the Net. This stage in the cycle requires systematic scanning of data to set aside that which will contribute to insight. The student sorts and sifts the information much as a fishing boat must cull the harvest brought to the surface in a net. The student is looking for information which contributes to understanding.

Step 5: Synthesizing

In a process akin to jigsaw puzzling, the student arranges and rearranges the information fragments until patterns and some kind of picture begin to emerge. Synthesis is fueled by the tension of a powerful research question.

Step 6: Evaluating

Early attempts at synthesis usually produce some frustration and a sense that the researcher needs — to return for more information. The early shape of the puzzle suggests missing pieces which the researcher could not have pictured when originally planning the research. The student asks what more is needed. The cycle kicks in once more as questioning intensifies and leads to planning and more gathering. After several cycles, if the picture is reasonably complete, the evaluation stage suggests an end to the research cycle. It then becomes time for the reporting and sharing of insights — a related but somewhat separate stage.

After the initial gathering and evaluation of your information, it is usually necessary to repeat the cycle to gather more information and complete the investigation.

Repeat Process!

Questioning (before)
Planning (before)
Gathering
Sorting & sifting (after)
Synthesizing (after)
Evaluating (after)
Reporting

Activity: Group discussion of how these stages might work for a team of students trying to decide which city in New England their families might select as a new home.

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Information Power: Building Partnerships for Learning. Prepared by the American Association of School Librarians & Association for Educational Communications and Technology, Chicago. American Library Association, 1998.

Minnesota Standards for Effective School Library Media Programs 2000. Developed by a Committee of the Minnesota Educational Media Organization, http://cfl.state.mn.us/library/mnschoolstandards.pdf

The Illinois School Library Association: for the *Illinois School Library Media Program Guidelines, Linking for Learning*, http://www.islma.org/linkingforlearning.htm

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