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Abstract

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This study indicated that a large majority of the home schooled students interviewed conduct research on a regular basis, and that they all used the public library for pleasure reading and information. Skills to conduct research were generally taught by the parent educators, and were integrated into a total process. Even though information problem solving was predominantly taught as a process, and non-traditional projects were assigned, these children primarily conducted research in the traditional manner, through the use of the print materials, card catalog, and the Dewey Classification System. A large majority of the families had access to an electronic encyclopedia, and over half used the internet, but their instruction in how to execute electronic search strategies was inadequate.

A Structural Analysis of the

Information Problem Solving Strategies

of Selected Home Schooled Students

A Graduate Research Paper

Submitted to the

Department of Curriculum and Instruction

Division of School Library Media Studies

Presented in Partial Fulfillment

of the Requirements for the Degree

Master of Arts

UNIVERSITY OF NORTHERN IOWA

Jacquelyn M. Stoakes
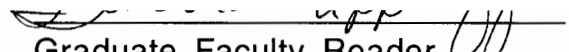
August 1998

This Research Paper by: Jacquelyn M. Stoakes

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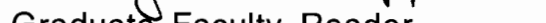
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Date Approved

Barbara Ripp Safford

Graduate Faculty Reader

July 22, 1998
Date Approved

Marjorie L. Pappas

Graduate Faculty Reader

7-31-98
Date Approved

R. Muffoletto

Head, Department of Curriculum
and Instruction

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CHAPTER 1

Introduction

In recent years, a growing concern has arisen about conventional education and whether the developmental, educational and social needs of all children are being met by public and private schools. This concern has led to a number of educational alternatives, one of which is home schooling (Knowles, Muchmore and Spaulding, 1994, p. 240). Home instruction, or home schooling has been defined as an educational situation in which "instruction and learning take place primarily at home in a family setting, with a parent acting as teacher or supervisor of the activity" (Lines, 1991b, p. 10). Although not a recent phenomenon, the home schooling movement has grown rapidly in the United States over the last 20 years. Lines has estimated that the population of home schooled children swelled from approximately 10,000 in the early 1970s to between 250,000-350,000 during the 1990-1991 school year (1991a, p. 1). More recent data indicated that during the 1993-1994 academic year the number of children educated at home grew to be between 450,000 and 800,000 (Mayberry, Knowles, Ray and Marlow, 1995, p. 7). Even though the early years of the current home schooling movement were frequently marked by confrontations between parents and school officials, this educational alternative has now been granted legal recognition in one form or another in all

50 states (Gordon, Russo and Miles, 1994). Many public schools even have policies that allow home schooled youngsters to benefit from public school programs and resources. In return, schools can count the home schooled children in state funding formulas (Ramsey, 1992).

Home schoolers are very diverse and their reasons for undertaking home schooling are as varied as the number of families and children involved. They share at least one common belief -- that education of children is primarily the right and responsibility of parents and they can and should be involved in their children's education and development (Lines, 1991a &b; Mayberry, et al., 1995, Ray, 1989; Van Galen, 1991).

While home schooling is a fast growing educational movement, and the research base in home education is growing, relatively little is known about this alternative to conventional education (Ray, 1989, p. 17). A major concern of educational officials is the validity of home schooling. Are the students taught at home receiving the same skills as those taught by conventional methods? The students of today face many challenges as the 21st century approaches. Whitney (1988) states that "life in the next century will be characterized by the demands of adjusting to new circumstances, learning new skills, competing in a changing job market, and keeping abreast of technological developments that . . .

create more change" (p. 7). As society becomes more complex and the wealth of available information increasingly grows, our children must become acquainted with a process for learning which will transfer from the academic area to real life, thereby enabling them to be informed citizens who think critically and are problem solvers. This requires the ability to "manage complex masses of information generated by computers and mass media, and to learn throughout life as technical and social changes demand new skills and knowledge" (Kuhlthau,1989, p. 2).

Due to President Clinton's request that each state adopt tough standards for achievement in mathematics, science and other subjects, many states and districts across the nation have developed standards for student learning that describe what students should know and be able to do throughout their school years. These standards are "intended to provide guidelines for curriculum and teaching that will ensure that students have access to the knowledge necessary for their later success" (Darling-Hammond, 1997, p. 190). To enable students to be successful, educators throughout the United States have had to rethink the structure of schools, requiring changes in classroom organization and teaching practices. These "new" teaching strategies have taken into account varying levels of intelligence and learning styles, have allowed students to make choices, and used a variety of methods that engage

them in authentic, hands-on learning. Classroom instruction in the 1990's has also focused on reasoning and problem-solving rather than factual recall. Library media centers have become integral partners in schools' educational process; due to the increase in electronic and interactive media, the school library has been "transformed from a warehouse of books, equipment and media into a communication command post" (Morrill, 1995, p. 32), with the vision being that the media center will be considered the learning center of the school (McCarthy, 1997, p. 206).

Wesley (1991) examined the responsibility of school library media specialists in preparing students to become information literate and lifelong learners. She contended that this responsibility extends far beyond teaching students to locate information; the knowledge of how to put that information to use is essential. "Learning what to do with information is a much more critical . . . skill for our students' future ability to function and succeed in an information society" (p. 23).

As a result of the significant changes within education during the past decade, the American Association of School Librarians and the Association for Educational Communications and Technology developed Information Power: Guidelines for School Library Media Programs (American Association of School Librarians . . ., 1988). This resource provided guidance for the

planning of school library and media programs in order to "ensure that students and staff are effective users of ideas and information" (p. 1). The library and information curriculum outlined in <u>Information Power</u> provides structure for students to be taught how to meet their information needs effectively and efficiently, and thereby become lifelong learners. For students to become information literate, it is important for them to be taught more than access skills; students need to develop skills that will equip them to "not only locate, but also evaluate and use information effectively . . . " (Mancall, Aaron and Walker,1986, p. 19). Vandergrift and Hannigan (1986) stressed that the school library media program is central to education today -- to help all students find "not only the resources to support and extend their knowledge of the various subjects of the school curriculum, but to develop abilities to deal with alternative, often conflicting sources of information and ease in the use of the products of the technological revolution" (p. 172). This emphasis will only be strengthened with the publication of the new "Information Literacy Standards for Student Learning" included in the updated version of <u>Information Power: Building Partnerships for Learning</u> (American Association of School Librarians . . .,1998).

In this information age, computer literacy has become an essential component of information literacy. Rather than thinking of

technology as an add-on to the curriculum, it must be thought of as "another method of teaching the curriculum already in place" (Baldwin and Schulman, 1992, p. 9). Knowing how to operate a computer and understanding what computer hardware and software can do, as well as the basics of the electronic search process provides a good basis for information skills (Kuhlthau, 1987, p. 4). By exposing them to information in a variety of formats, students have become aware of the information sources available to them. Students also need to feel at ease with computer networks, online catalogs and other electronic resources which are becoming basic in any educational program (Mancall et al, 1986).

According to Gorder (1990), "a major purpose of education should be to help the student learn to function in the world" (p. 77). For all students, whether educated in public schools, or at home, the ultimate goal of becoming problem solvers and informed decision makers, should be stressed, so they will be prepared for adult life and the workplaces of tomorrow. Students in public schools have access to media centers, technological equipment, and planned information skills instruction, which will allow them to function successfully in the twentieth century. Home schooled students use public libraries and school libraries for leisure reading and to extend their basic curriculum. But the question remains -- even if home schooled children use the library extensively, is the

information skills instruction they are receiving adequate for them to become lifelong learners?

Research Questions

1. How do home schooled students choose topics for supplemental research?

2. How do home schooled students identify and find the resources they need?

3. Once materials are found, how do home schooled children access the necessary information found within?

4. How do home schooled children evaluate resources to ascertain whether they are appropriate for their research?

5. How do the home schooled students extract the information from a resource?

6. How do home schooled students communicate what they've learned?

7. How are the final products evaluated?

8. Are the skills of information problem solving taught as a process or in isolation?

9. What technological resources are used by home schooled students and how are search strategies taught?

Purpose of the study

The purpose of this research was to investigate the information problem solving skills curriculum of students in four

Iowa school districts who are educated at home, and whose parents belong to a home school networking group. The participants were asked specific questions pertaining to the ways in which the curriculum they are using integrates the research process.

Significance of the study

Some exploratory research has been done concerning descriptions of the home school population, the way home schools are conducted, and parents' motivations for educating their children at home. Researching the information skills curriculum in home schools has been important for three reasons.

First, Ray (1988) indicated that more research needs to be done to investigate the curriculum of home school education, especially pertaining to "library materials . . . curriculum materials . . . and specialized equipment (e.g. computers)" (p. 18). Home schooled children appear to frequent the library, but the question remains as to what type of library/information skills are taught within their total curriculum, in order to offer them an appropriate education and ensure that they become information literate, and well-informed citizens in the next century.

Secondly, the increase in technological advances, as well as the changes generated by the "information age" have offered home schooled students a wide range of learning possibilities. Software programs teach anything from reading comprehension to desktop

publishing to foreign languages. "CD-ROM reference sources are accessible and enjoyable research tools" (Rieseberg, 1995, p. 13). Through the internet home school children have been able to find a realm of resources, as well as opportunities to interact with other home schoolers. Once again, a query has been raised about how home schooled students use available computer software, CD-ROM resources, and the internet. Are home schooling families aware of the rich variety of resources available to them via computers and the internet? If these students are using computerized resources, how are they gaining the skills to search and extract the information? Gorder (1990) suggested that "all children must become comfortable with the operation and language of computers -- they will be 'lost' in the future if they do not become computer literate" (p. 145). This research could be used to make home schooling parents aware of the benefits derived from technology, not only from an information standpoint, but to prepare students for their future as citizens and in the workplaces in America.

Moreover, by learning more about home education, and "by informing the research community, school administrators, practitioners, home school networking support groups, and others of our emerging knowledge and understanding of home schools we hope to further the development of educational practices to benefit all

children -- not just those who are educated at home" (Knowles, 1988, p. 12).

Definitions

Home schooling is a "learning/teaching situation wherein children spend the majority of the conventional school day in or near their home in lieu of attendance at a conventional institution of education; parents or guardians are the primary educators of their children" (Ray, 1988, p. 5).

Information literacy is "the ability to acquire both core and advanced knowledge and to become an independent, lifelong learner who contributes responsibly and productively to the learning community" (American Library Association, 1996, p. 1).

Information problem solving includes the skills of "locating, interpreting, analyzing, synthesizing, evaluating and communicating information," all of which prepare students to function effectively in a "future characterized by change" (American Library Association, 1996, p. 2).

Electronic searching, as a part of the information problem solving process, is the ability to access information by using "keyword functions to search through all text of a database" (Pappas, 1993, p. 33).

Limitations

Ray (1988) has indicated there is a wide variety of opinion and practice found among home schoolers. Home school parents and families are not drastically different from most Americans, except for the fact that they operate home schools. Therefore, it is difficult to make generalizations about the home school population.

Since this research will be limited to the town of Grinnell and the surrounding area, the information gathered will only be applicable to home schooled families with similar characteristics, using similar curricula and teaching styles.

Assumptions

Information literacy will be important for all students to be successful in the future.

Because home schoolers use public libraries and other resources (Lines, 1995) it will be assumed that home school curricula include some aspects of information skills.

Students need instruction in using libraries and information successfully.

Despite the conservative attitude of home school parents, some aspects of critical thinking and problem solving are included in home schooling curricula.

Summary

The widespread belief about the rapid decline in the quality of American education has caused citizens of the United States to express dissatisfaction with "public school outcomes, philosophies, policies, personnel, or other perceived events and attitudes" (Knowles, et al., 1994, p. 241). Reform efforts have centered on establishing higher academic standards by improving curriculum and instruction and raising graduation requirements. Another concern being raised is the conflict of values between families and schools; many parents object to the schools teaching values and beliefs contrary to their own (Van Galen, 1988). This disenchantment with public schools has caused a number of parents to consider alternative forms of education for their children, one of them being home schooling (Toch, 1991). While the number of home schooled students appears to be growing, a major question being raised is whether this non-traditional approach to education is academically advantageous for those children involved, and if they will be ready to live and work in the next century.

In order to prepare students for the rapidly changing workplaces and careers of the twenty-first century, Information Literacy Standards have been proposed by the American Association of School Librarians in conjunction with the Association for Educational Communications and Technology (1996). These

standards stress the importance of teaching students how to access, evaluate and use information effectively "to acquire both core and advanced knowledge and to become independent, lifelong learners who contribute responsibly and productively to the learning community" (p.1) The hope is that throughout their educational experiences students will be exposed to all aspects of these standards, which will prepare them for life in the next century.

It appears that the public and school libraries and varied library and resource materials play a significant role in the curriculum of home schooled children, especially when predominantly parent-planned. The question remains -- even if home schooled children use the library extensively, is the information skills instruction they are receiving adequate for them to become lifelong learners and successful problem solvers in the next century?

CHAPTER 2

Review of Literature

This literature review delineated the scholarly research that has been conducted on the subject of home schooling and how it relates to the field of information science. Targeted background areas included the historical perspectives of home schooling, the growth of this non-traditional way of teaching, and statistical information about the characteristics of home schooling families, including their reasons for home schooling. Also investigated were the legal issues surrounding home schooling, especially pertaining to the state of Iowa, how the teaching/learning situations are structured, and the academic achievement of home schooled children. Lastly, research about the importance of information skills in preparing students to be information literate and lifelong learners was identified.

Home Schooling

Reacting to educational reformers and the negative publicity surrounding public education, an increasing number of parents have chosen to remove their children from conventional schools and teach them at home (Litcher and Schmidt, 1991, p. 239). Parents of home schoolers have a firm belief that schools are not providing a healthy environment for their children and share a need to have a measure of control over their children's learning and

development. Even though society has felt that the more acceptable course of action is to send a child to a public or private school, these parents are willing to educate their children in a non-traditional manner (Van Galen, 1991, p. 75).

Historical perspectives. The present home school movement emerged as a "direct reaction to the many shortcomings that were commonly raised by educational reformers of the 1960's and early 1970's" (Knowles, Marlow, and Muchmore, 1992, p. 195). Critics such as John Holt (1969) and Ivan Illich (1970) condemned public education for its deplorable condition and advocated a variety of educational alternatives. As a result, free schools, community schools, and alternative schools were begun. Knowles et al. (1994) have suggested that home schooling emerged from this alternative school movement; home schooling was accepted as one of the alternatives. Although home education during the 1960's and 1970's was mainly concerned with social and pedagogical issues, today the largest growth in home schooling appears to be among the evangelical Christians who are unhappy with the secular nature of public schools and either cannot afford private education or have not found a suitable religious school (Lines, 1991b).

Growth of home schooling. The phenomenon of home schooling has grown rapidly in the United States over the last two decades. Lines (1991a) used a triangulation of data from curricula

suppliers and their data on enrollments, state departments of education and their data on families who file papers with state and local officials, and home school leaders (officials in home school associations and support groups), to form an estimation of the home schooled population. According to her research, during the 1990-91 school year there were between 250,000 to 350,000 children being home schooled. This number was up from the estimates of approximately 10,000-15,000 home schooled youngsters made by John Holt in the late 1970s (1983, p. 92). In a more recent estimate Ray analyzed data throughout the state of Washington and projected that the number of home schools nationwide had grown about 15% per year, to a total of approximately 450,000 to 800,000 students (Mayberry, et al., 1995, p. 7). Although the number of home schooled students represented only 1% of the total number of school-aged children in the country, these estimates still documented the existence and steady growth in the home school movement (Lines, 1995, p. 2).

Characteristics of home schooling families. Ray (1988) examined and synthesized research conducted on home schooling in order to discover the general characteristics of home school families. He found major commonalities. Home school families were generally traditional, middle class families with a total household income of $20,000 to $30,000 per year (p. 6). Many of

these parents were well educated, often holding college degrees and even teaching certificates. While the father was usually the principal wage earner, the mother was responsible for the greater share of the teaching. Over 70% of home schooled families regularly attended religious services (p. 7). Children began formal instruction at approximately 5 1/2 years of age, and there were nearly equal numbers of boys and girls (p. 6). Typically, three to four hours a day were spent on school work, studying a wide range of conventional subjects including math, reading, and science as well as spending extra time in independent study. The learning program was individualized, often using a combination of purchased curriculum materials and materials organized by parents. In fact, Ray concluded that home schoolers are not drastically different from most Americans, except for their belief that education is "primarily the responsibility and right of parents" (p. 9).

Over the past thirty years, the two most common reasons why parents have engaged in home schooling were differences with school officials over teaching practices, and religion (Gordon, et al, p. 2). Van Galen (1991) in her article, "Ideology, Curriculum and Pedagogy" reported that either parents felt their views were excluded from the curriculum or that their children were being inadequately educated in available schools. The study conducted by Van Galen (1991) examined the values and beliefs of parents who

chose to teach their children at home, and "analyzed the social context within which those values and beliefs were created and maintained" (p. 65). By conducting interviews with 23 parents from home schooling families, plus state and local education officials she identified two broad categories of home school parents: ideologues and pedagogues (p. 66). Ideologues objected to the content and values being taught in public and private schools and sought to strengthen relationships with their children. These parents had specific values, beliefs and skills they wanted their children to learn, and did not believe the goals they had for their children, and the purposes of public education were the same. A major concern of these parents was their children's ethical, moral and spiritual development. They feared that their children would be unduly influenced by teachers and other children, which would ultimately compromise their own morals and values. To them, "the family is the most important institution in society" (p. 66); they believed that they were fulfilling God's plan for Christian parents and for their families by educating their children at home (p. 67).

Pedagogues, the other group of parents who home school their children, as identified by Van Galen (1988, 1991), felt that schools taught whatever they taught ineptly, and their children would be harmed academically and emotionally by the organization and teaching methods of formal education. Rather than the content

and values schools teach, these parents were concerned about the effectiveness of the instruction. Van Galen concluded that pedagogical parents were highly independent, striving to take responsibility for their own lives, as well as the lives of their children. They felt that their children would learn more naturally and more completely at home rather than by participating in conventional education. These families were very child-centered, and that philosophy was carried over to their children's academic experience (1991, pp. 71-72).

Frequently, children in pedagogical families were found to have problems in school. According to Van Galen (1988), the actual decision to home school children was often "triggered by some specific and unique experience, which varied widely from family to family" (p. 55) . Pedagogical parents felt that schools were either unwilling or unable to serve children with unique learning styles or needs, and by choosing to teach at home, they hoped to find a solution to whatever learning situation was causing a problem for their child (p. 57).

Mayberry, et al. (1995) used in-depth interviews with 36 home schooling parents, and concluded that these parents believed that playing a primary role in their children's education was just part of being a parent. Even though some thought the education of their children was a God-given right, and others professed New Age

beliefs and lifestyles, they all felt that home was a safer and more congenial learning environment for their children (p. 39).

Legal Issues

Gordon, et al. (1994) stated, "Home schooling is a choice that focuses on the important question of who should control the education of American children and how the delicate balance between the rights of parents and the state can best be maintained" (p. 1). They indicated that home schooling has been granted legal recognition in one form or another in all fifty states, although laws varied from state to state regarding the level at which supervision of the home schooling situation occurred (p. 53).

Gordon et al. (1994) analyzed legislation from throughout the United States, and determined that the most common forms of state control ranged from legislation requiring parental notification of the intent to home school, to specifying teacher qualifications, to mandatory student testing. A large majority of states required parents to file a notice of intent to home school with the state or local school district when choosing to educate their children in a location other than a public school (p. 30). This usually entailed filling out a form that identified the child and briefly described the curriculum being used. Because these approval requirements made such modest demands on home schooling parents, they were generally upheld when litigated. It was usually found that the state

had the right to impose reasonable regulations to control basic education. After all, the state's interests were geared toward ensuring the education of the children who live there (Gordon et al., 1994; Ramsey, 1992).

Gordon et al. (1994) also pointed out that requirements regarding teacher qualifications varied widely among the 26 states specifying particular qualifications of home schooling teachers. Michigan, which had the most restrictive laws on home schooling, required all teachers to be certified. On the opposite end of the spectrum were Hawaii and Wisconsin, neither of which stress any teacher certification requirements at all (p. 30).

Marlow (1994) compared home education policies throughout the United States to identify the four major assessment issues in home education. Her research indicated that statutes in thirty-five states addressed student assessment, by requiring evidence that the home schooled child was progressing. The predominant option was standardized testing, although some states allowed parents to show evidence of a student's progress through the use of a portfolio as an alternative form of assessment. She found that the states of Hawaii, Vermont, Washington and Iowa had the broadest range of options for assessment by allowing parents the choice between standardized tests or alternative assessment forms (p. 448). There were also two states which required no

formal assessment process, namely Kentucky and Wisconsin. Once again, Gordon et al. (1994) stressed that the courts considered testing to be a legitimate interest of states in monitoring the academic progress of students (p. 34).

Ramsey (1992) found that since 1982 more than thirty states have changed their laws or state department of education regulations. Rather than limiting home schooling, these statutes and regulations have increased the rights of parents, making it easier for them to teach their children at home with a minimum of involvement from the state. Gordon et al. (1994) suggested that as long as state regulations continue to be reasonable, they would survive any judicial challenges brought to the courts by home schooling parents and support groups.

Iowa regulations. In Iowa, any parent, guardian, or custodian of a child of compulsory education age who wishes to home educate their child may do so by annually completing a report created by the Iowa Department of Education and provided by the school district. This report includes pertinent information about the parent, child and instructor, the number of instructional days (which must number more than 148), an outline of the courses of study, and evidence of the immunization of the child (Home Schooling Regulations for All 50 States - Iowa, 1996, p. 1). A parent does not need to hold an Iowa teacher's certificate to teach a child at home.

Assessment of the child's progress is mandatory if the instructor does not have a teaching certificate appropriate to the age and grade level being taught. This may be achieved through the use of a standardized test or some type of alternative assessment (p. 1). Marlow (1994) cited that Iowa home schooling parents may select from a list of state-approved testing instruments, or they may file a request with the department of education to substitute another test. They may also elect portfolio assessment in lieu of standardized testing. To do this, the parent must arrange to have a licensed Iowa practitioner who has received special training in portfolio assessment, review the students' work and evaluate his/her progress. Even though this Iowa statute does not delineate criteria for reasonable academic progress or consequences for home educated students who fail to achieve, it does outline expectations for the contents of portfolios, as well as the curriculum and a possible course of study (p. 450).

Ramsey (1992) explained a fairly recent option, called dual enrollment, adopted in 1991 by the Iowa legislature. Under dual enrollment, home schooled children have been able to take advantage of any academic or instructional programs provided by the district, as well as extra curricular activities, and resource services (p. 24). If requested, the school district would also provide a supervising teacher through a Home School Assistance Program. This would

exempt the child from the annual assessment requirement. In return, the school could count the student in the state funding formula (Home Schooling Regulations for All 50 States - Iowa, 1996, p. 2).

Structure of Home Education

When investigating home school programs it was found that there is as wide a variety of educational approaches and philosophies as there are numbers of families. Van Galen (1988, 1991), from her interviews with home schooled parents, has noted the difference that lies between ideologues and pedagogues is in the structure of home education as well as in their reasoning behind home schooling.

Van Galen (1988) found that the majority of ideologues attempt to reconstruct school in their homes. They structure learning for their children after traditional education by using textbooks and workbooks frequently purchased as total curriculum packages. They "adopt the trappings of formal schooling and merely substitute their own ideology for those elements of formal schooling they find objectionable" (p. 59). Especially when beginning the home education experience, these parents were more concerned with teaching a specific value system than with allowing their children to be divergent and analytical thinkers. Over time, many of the ideologue parents were less likely to rely on

prepackaged curricular materials and began to make more of their own decisions about their children's education. Apparently, as they became more experienced at the home schooling process, they felt more comfortable about making their own judgments in organizing the best plan of study for their children, and became more innovative (p. 64).

Making the decision to home school as a result of dissatisfaction with the way schools teach, pedagogues attempted to make their instructional method as distinctly different from formal education as possible. Their primary objective was to meet the individual needs and interests of each child by deliberately choosing alternative procedures and experimenting with various techniques and materials. "In pedagogical families, workbooks and textbooks, whether purchased as a package curriculum or collected by the parents, are adapted to fit into days that are organized around more informal and experiential learning" (Van Galen, 1988, p. 60). These families tended to place the learner central to everything else that occurs within the home setting. Spontaneity and creativity were emphasized and children were encouraged to analyze and criticize rather than just memorize the materials being used. They were also given opportunities to pursue their own projects and to work at their own pace using resources that were available in the home or surrounding community (Van Galen, 1991, p. 73).

Through the use of a questionnaire, Litcher and Schmidt (1991) surveyed approximately 60 home schooling parents in the state of North Carolina. The purpose of their study was to investigate the kinds of teaching materials employed in home schooling, especially in the area of social studies. They found that nearly half of the parents interviewed created their own curriculum, either from secular publishing companies, or from textbooks used by local public schools (p. 240). Lichter and Schmidt asserted that although textbooks provide the foundation for numerous home school programs, many parents go above and beyond this level, by employing a wide range of supplemental materials in their teaching. "They go out into the community and world at large for resources; the public library being one of the greatest resources available to them" (p. 241). Some of the other community resources available to home schoolers were museums, historical sites, lectures and concerts. Children were also exposed to other cultures through interaction with foreign exchange students. The flexibility of home schooling was one advantage, giving students and parents more opportunities for travel and field trips (p. 241).

Academic Achievement Issue

Of all the issues surrounding home schooling, the one causing the most controversy was that of the academic achievement of children educated at home. The concern of many opponents to

home education was whether the practice of home schooling is academically advantageous for the children involved (Calvery, 1992, p. 1). For accountability purposes, most states required some form of assessment process; parents were asked to provide evidence of their child's academic progress. This usually has taken the form of a standardized test, with minimum performance standards as criteria for academic progress. Some states even allowed parents the option of using portfolios as an alternative form of assessment (Marlow, 1994, p. 452).

Frost and Morris (1988) tested 74 Illinois home schooled children through the use of the Iowa Tests of Basic Skills and found that when compared to the national norms, home schooled students out-performed their traditionally educated counterparts in all areas except mathematics (p. 226). In a nationwide study of 4,600 home schooled children, the Home School Legal Defense Association (1990) learned that home educated students scored, on the average, at or above the 80th percentile on national norms in all eight areas considered (p. 5). Ray and Wartes (1991) collected the Stanford Achievement Test scores of home schoolers throughout the state of Washington. Their analysis indicated that there was academically no difference between the achievement of home schooled children and children attending public schools. In fact, home schooled students' achievement scores were found to be generally equal to or higher

than those of their peers in traditional schools (p. 52). Calvery, Bell and Vaupell (1991) compared the differences in achievement between home schooled and public schooled students for grades four, seven and ten in Arkansas. Their results showed that the average Arkansas home schooled student achieved better than the average Arkansas public schooled student as measured by a standard achievement test.

The preceding research data indicates students taught at home do as well or better than conventional school students on standardized tests. It appears that a child who is home schooled "need not be considered at an academic disadvantage when compared with his or her peers who are attending traditional public schools" (Frost and Morris, p. 226), and the home school setting should be recognized as a viable alternative to achieving traditional school-related goals.

Information Literacy

Kulthau (1989) asserted that "the challenge for education in the twenty-first century is to prepare students to use information in the workplace, in their personal lives, and as responsible citizens" (p. 19). To meet this challenge, Goals 2000, by requiring tougher academic standards and alternative assessments, has generated a restructuring of the learning process (Cohen, 1995, p. 751). As a result, learning has become more resource based;

students are now becoming more actively involved in the learning process. This has required the resources of the school library media center to be accessed for classroom learning, causing it to become the information center of the school (Kuhlthau, p. 19).

An extensive study administered by Lance, Welborn, and Hamilton-Pannell (1993) investigated the impact of school library media centers on academic achievement. They compiled data from 221 schools in the state of Colorado to develop and test a model of academic achievement and to determine the importance of library media centers (p. 1). Collected data included information about each school (specifically, community size, student population, teacher-student ratio, qualifications of teaching staff, and expenditures per student), and school library media centers (including size of collection, usage of the media center, amount of involvement the media center staff had in assisting students and teachers, use of computers, and total expenditures). The various statistics were then compared to standardized test scores. It was found that the the size of a school library media center's staff and collection is considered the best predictor of a school's academic achievement (p. 128).

All children need to acquire the skills necessary to find and process information, as well as how to deal with the overwhelming amount and variety of information (Kuhlthau, 1989, p. 22).

Instruction in library and information skills has been widely accepted as one of the major functions of the library media program. In fact, one of the goals in Information Power (1988) was based on the assumption that in order to use available resources effectively, "students need to learn a systematic process to gain physical and intellectual access to information and ideas" (p. 29). Kuhlthau (1987,1989,1993a, 1993b), Eisenberg and Berkowitz (1992), and Mancall et al. (1986) shared the view that information skills should be taught within the context of an overall process rather than focusing on individual skills related to sources.

Kulthau (1993b) summarized the findings from an intensive study of a group of 25 high school seniors and derived a model of the information search process. The model depicted information seeking as a six stage process. She noted that "the model is used to illustrate the sequence of tasks, thoughts, actions and feelings that are commonly experienced in each stage of the process" (p. 12). The user must be mindful that this was only a perspective on learning, rather than a formula for teaching. According to Kuhlthau, the first stage in the process was task initiation, during which students must prepare to select a topic by understanding the assignment. Selecting a topic was identified as the next stage, while the third stage involved exploring information on the general topic in order to gain a focus. This was the most difficult stage of the process.

Information collection was the fifth stage, the task being to gather information pertinent to the focused topic, taking detailed notes. Lastly, in search closure the student completed the search and organized the findings in order to present the information (1993a, pp. 35, 46, 49). Throughout the entire process students' thoughts and feelings ranged from apprehension and uncertainty, to brief elation after selecting a topic, back to confusion and doubt, and finally on to confidence and relief upon completing the assignment (pp. 44, 45, 47, 48). Students needed to be aware that these feelings were a natural part of the search process, and commonly experienced by researchers (p. 52). Kuhlthau then conducted a series of sub-studies to validate and generalize the model (p. 54). The major finding in this study was that the model of the information search process was valid for adult and college-aged library users in academic and public libraries as well as with a range of high school students.

Eisenberg and Brown (1992), in a review of research in library and information skills instruction, pointed out that to teach students effectively how to implement an information problem solving process, all instruction should be integrated with subject curricula (p. 105). The information skills curriculum should also be an integral part of the school's instructional program so that all

students have equal access to knowledge and equal opportunities be competent information users in the future (p. 107).

Summary

By removing their children from the formal school setting, parents who home school their children are not only making an ideological or pedagogical choice, but are reacting to conditions of society and are seeking to defend their own values and beliefs (Marlow, 1994; Mayberry, et al., 1995; Van Galen, 1991). "The home has become the focus for instruction for both liberal and conservative parents," who believe that formal schools are unable to meet their children's educational needs (Knowles, et al., 1992, p. 197). Over the last two decades the number of children who are home schooled has grown rapidly in the United States; this alternative to traditional education has been recognized legally in all fifty states. The issue of academic achievement has caused the most controversy for home schooled families, even though studies have found the achievement test scores of home schooled youngsters to be generally equal to or better than children attending public schools. Home schooling parents have structured their children's education by using a wide variety of approaches and philosophies; while purchased textbooks and curricula have provided the basic framework for instruction, many parents have employed a wide

range of supplemental materials, with both public and school libraries being the main source for these resources.

During the last decade the introduction of standards into American educational system has resulted in a restructuring of the learning process, causing instruction to be more hands-on and resource-based. With students more actively engaged in the learning process, the school library media center has been expected to provide access to a full range of information resources needed by them, and has become an integral part of the learning climate of the school. In addition to providing the informational resources, a major function of the library media program has been instruction in the skills of access and use of those resources. Various studies have indicated that instruction in information skills has been more effective if taught as a systematic process, and integrated within the content areas. Also, making the information skills curriculum a part of the school's instructional program is imperative. All students, no matter what their educational setting, should have equal access to knowledge and equal opportunity to be successful information users in the future.

CHAPTER 3

Methodology

This study investigated the information problem solving skills curriculum of home schooled students. Questions investigated included if the information problem solving strategies were taught as a part of a purchased curricular package, or planned by parents, whether the skills were taught as a process, and integrated within content areas, or as individual skills, and how home schooled students learned electronic search strategies so they might be successful in using computerized resources. More detailed questions researched how home schooled children chose topics for supplemental research, how they identified and found appropriate resources, and how they accessed information within those resources. Other areas targeted for study were the ways home schooled students communicated what they learned, as well as how both the product and the process were evaluated.

An interview survey method of a selected group was used to collect data. Because of the small number of subjects and their close proximity to the researcher, data were collected through a personal interview questionnaire. Six preliminary questions were formulated to establish a comfort zone between parent and researcher and to learn some background information about the general home schooling experience. The 14 questions investigating

how home schooled students do research were based on the information problem solving process developed by Kuhlthau. Due to the importance of electronic resources in any educational program, that aspect of information problem solving was also discussed. All questions asked were open-ended to prevent bias. (A copy of the survey questionnaire used to collect data is Appendix A.)

The subjects were fourteen home schooled families who lived in Grinnell, Iowa and the surrounding area. All participants belonged to a home school networking group located in the immediate area. The 43 children in these families ranged in age from kindergarten through grade twelve and were dual-enrolled with the school districts in which they reside, namely, Grinnell-Newburg, Brooklyn Guernsey Malcom (BGM), Montezuma and North Mahaska. (Family profiles are Appendix B.)

All participants were personally contacted to ask for their commitment to participate prior to initiating the formal interview process. They were selected from the list of names made available by the parent who was chairperson of the home school networking group. Only one family was excluded, due to the fact that they lived in a town too distant for travel. An unstructured interview session was personally conducted with each participant family. Before beginning the interview, the participating adult signed an agreement granting permission to have the interview session audio-taped.

(Appendix C is a copy of the Informed Consent Form.) A reproduction of the agreement was later sent to the participant family. The parent acting as teacher was given a copy of the interview questionnaire, and was asked to respond to the questions according to their own home schooling experience. The home schooled student(s) were also given the opportunity to participate in the interview. During the interview process, parents were encouraged to ask questions for clarification and discussion. Responses were manually recorded by the interviewer, even though the interview session and ensuing discussion were audio-taped for transcription at a later date.

After each interview session the audio-tape was replayed, and all response data recorded onto the family's questionnaire form. Answers to individual questions were then compiled onto one questionnaire, and the frequency of similar responses was tallied. As the data was being compiled, the audio-tapes were referred to for clarification and confirmation of the responses. A closer analysis was made by comparing the curricular style used by each family, with how the information skills were taught, whether as a process, or as isolated skills, and if the instruction was integrated within content areas. This analysis indicated several emerging patterns. The data were then sorted by these patterns until several distinct conclusions could be made.

CHAPTER 4

Analysis of Data

This study was conducted to investigate the research and information use skills of 41 home schooled children who, in addition to their parents, are part of a home school networking group in central Iowa. Each home schooling parent was interviewed individually, and asked to respond to twenty open-ended questions prepared beforehand by the researcher. The interview was divided into two portions. For background information, and to help the researcher come to a better understanding of each family's total home schooling experience, six preliminary questions were asked. Then, the parents were asked to respond to fourteen questions dealing with the research process, and how those skills are being taught, the main focus being on whether the skills are taught as part of the curriculum, or in supplement to it, and whether information problem solving is taught as a process, or broken down into individual skills. Evidence of electronic searching skills was also investigated. (Summaries of individual family interviews are Appendix D.)

Characteristics of Participants

Mothers from fourteen home schooling families were interviewed. The ages of the 43 children ranged from five to seventeen years, with both the mean and the median age being ten.

In most cases, the number of years participating in home education was dependent on the age of the children in the family. Four of the families were just completing their first year of home schooling, while others had been teaching their children for the past thirteen years. Two of the teenaged students began public school education in the fall by attending their local high school, and the one student who has "graduated" is now experiencing the real-life world of work.

Only one of the mothers interviewed held a valid Iowa teaching certificate. Another mother had at one time earned a degree in elementary education, but had since allowed her certificate to expire. Eleven, or 79% of the parent educators had education beyond high school, six of whom had four year degrees, while three of the mothers had no education beyond the high school level. Except for the one parent with a teaching degree, each home schooling family has a supervising teacher who loosely oversees the educational plan for the family. These teachers are supplied by the local school districts in accordance with the guidelines outlined by the Iowa Department of Education.

Decisions to Home School

Even though the parents' decisions to home school were based on a variety of reasons, the predominant reason was a religious one; the majority of the parents felt that it was God's will

for their family, and that the education of children was their God-given responsibility. These parents wanted their own religious/moral values transferred to their children. Through the use of Christian, Biblically-based textbooks they felt that they had more control over their children's education, while at the same time keeping their family values intact. One of the positive aspects of home schooling was to spend more time together as a family, and not be pulled in so many different directions by various activities.

One parent said that she and her husband wished for their children to have a Christian education, but since no Christian private school was within close proximity, they decided to educate them at home. Another mother stated that at the time that their first child was ready for kindergarten, she and her husband were missionaries. Rather than send their little girl away to boarding school, this mom collected the regular kindergarten curriculum, and taught in the home. As their younger children became school-aged, the practice of home schooling continued, because it was enjoyable to the parents as well as the children, even though the family was back in the United States. Three home schooling moms stated that other family members (sisters) were already successfully home schooling their children, and so they had made the decision to do the same when their own children were ready for formal education.

Five of the parents questioned were unhappy with some aspect of the public schools and wished to have more control over their own children's education. One mother responded that she and her husband had been dissatisfied with the public school atmosphere for their older children, so they chose to teach their younger daughter at home. After being home schooled in her primary years their daughter had the option to go back to public school, but liked being educated at home and requested her mom to continue teaching her. Still another home schooling mom said that while teaching preschool she observed that the development of boys lagged behind girls, which often made school difficult for them. Since her first three children were boys she wanted to make sure that their educational experience was positive, and so the decision was made to teach them at home.

All of the parents were enthusiastic about their home schooling experience, and noted that they enjoyed the flexibility of teaching their own children. They also felt that their children benefited from the individualized attention of home schooling. One mother stressed that to their family, education was much more than the school day; working and learning together as a family unit was very important.

Home Schooling Structure and Curriculum

When questioned about the structure of their children's home schooling experience, the majority of mothers indicated that their days are extremely flexible. Most of them attempted to do the basic skills in the morning, while their children were given opportunities for more individualized study in the afternoon. Four of the families were farm families, and their education was scheduled around the garden and farm work. They have found that they make the most of the winter months. Almost all parents indicated that they have set definite goals of what is to be accomplished by each of their children. These goals are usually made jointly by child and parent.

Seven of the parents strictly adhered to a purchased curricular package, namely Bob Jones. The other half pulled from a combination of curricular companies. Their curriculum was predominantly parent-planned, with a "hodgepodge" of curricular resources used to teach the basic skills and an overwhelming supply of supplemental materials obtained from the public library. High school aged students used alternative educational options, through the use of correspondence courses, videotapes and classes from the community college.

Several parents talked about how their children learned through unit studies, by doing research on mutual topics of interest,

creating projects, and sharing with other families in a small-group format. Three of the families used history as the core of the curriculum, integrating all subject areas in a "whole" approach to education. After researching all aspects of particular periods in history, time lines were made, giving kids a better perspective of the world throughout the course of history. Others used a literature-based approach, especially in the language arts curriculum.

A variety of supplemental research projects were conducted by these home schooled children, some of which were assigned by the parents, others as an extension of the curriculum. Topics named by the parents included: learning about places prior to family vacations, genealogy, explorers, astronomy and navigation, communication with hieroglyphics and signing, archeology, country studies, artists, art styles and authors, biographical studies, endangered animals, and experiments and projects to extend the science curriculum. Parents who used history as the core of their curriculum explained how their children learned about history in chronological order by concentrating on particular time periods like ancient Greek and Roman civilizations, the colonial period, Civil War, and Pearl Harbor and the world wars. Children involved in 4-H independently researched topics for 4-H projects. Older elementary students learned about Iowa history and created notebooks about

American presidents. Typically, only students of high school age were assigned research papers.

<u>Choosing Topics for Research</u>

Research topics investigated by the home schooled students studied were predominantly planned by the parents, as noted in ten of the fourteen interviews. Although the projects were assigned by parents, children were usually given a choice of several options, either by being required to do several tasks out of a list of ten to twelve, or having a list of suggestions and choosing one that caught his or her interest.

Sometimes supplemental projects were suggested by the curriculum, as an offshoot of what is being studied. Only 50% of the parents assigned research topics in this way. It appeared that the parents who closely followed one curricular package have not deviated from the curriculum or assigned many supplemental projects. This was especially true of the parents who were new to home schooling. Parents who had more experience with teaching their own children, and planned activities from a wide range of curricula, seemed to attempt more experimentation with a variety of assignments and projects.

The other method by which the children in this research study chose topics for study was according to their own interest in the subject. Seventy per cent decided to conduct an in-depth study

of a particular topic just from their "desire to know." Most of the time the idea came from questions the child had about something he or she had read, seen in a video, or heard in a conversation with an adult or another child.

Use of Public and School Libraries

Whenever students from this home school networking group had information problems to be solved, they all used the public library as their main resource. Only three of the families had frequented their public school library media center; one family accessed information via a college library, mainly because their supervisory teacher is a member of the college faculty. Three families had extensive home libraries, which have been built up through the purchase of reading materials to support the curriculum.

These home schooled students used all aspects of the public library. All fourteen of the families interviewed used the public library to check out books for reading enjoyment and information. Weekly trips were made to choose books for pleasure reading. Those who planned their own curriculum and needed supplemental materials checked out large numbers of books at a time, to the extent of cleaning out the shelves of books on a particular topic.

One of the home schooling families did not own a television. The rest checked out videotapes on a regular basis. The children used these videotapes both for entertainment and information. Other

public library resources used by these home schooling students included audio cassettes, art prints, learning games and puzzles, computer games, the internet, and CD-ROM resources.

Over half of the parents mentioned that they used interlibrary loan to access books and materials not available in the public library. Often these materials were included in a reading list suggested by a purchased curriculum. When the public library staff held a semi-annual book sale, parents were eager to purchase a variety of supplemental materials to include in their home library.

Identification, Location and Access of Resources

There were three main ways the home schooled students interviewed identified resources to be used for research projects. All respondents said that their children primarily used the card catalog to locate materials. Ten of the fourteen parents noted that they taught the skills of card catalog use themselves, on an as-needed basis. Several parents noted that prior to looking in the card catalog they discussed with their children which resources would be appropriate for solving their information problem. They also discussed key words and subject headings that would be most beneficial for finding information. These skills were integrated within the subject area, and were learned as the children used them.

The remaining students learned the skills of card catalog use from a purchased curricular package. They were taught as individual skills within the reading curriculum, and were isolated from any content area.

Other ways these home schooled students identified resources were to ask for help from the public librarian, or to browse the library shelves, searching for books which will be most helpful in solving their information need. The public librarian was most helpful in instructing these children to access information by answering questions, and pointing students in the direction of appropriate materials. Almost all of the students understood the arrangement of the public library. Parents who taught children of various ages noted that the older children were very comfortable in searching for information, while younger children needed more assistance and guidance from an adult.

Only three of the students used reference books (other than encyclopedias) and periodical indexes as sources of information, while about 50% of them use the internet and CD-ROM resources. Basic electronic searching skills and the use of search engines were normally taught by the public librarian or an older student who had acquired the knowledge through his or her own experience.

Several home schooling moms indicated that the lists of sources which accompanied their purchased curriculum were helpful when looking for additional information. Usually the materials on these lists had a Christian perspective, or the same "world view" that the parents wished for their children.

Once resources were located in the card catalog, all of the home schooled students interviewed used the Dewey Decimal Classification System to find them on the shelves. These children knew and understood the arrangement of the library. They realized that books of similar subject areas were shelved together, and materials could be found by browsing the shelves. Even the younger children knew what areas to look in when trying to find materials of interest.

The skill of finding books by location number was predominantly taught by the parents; over half of the them indicated that they continuously walked their children through the process of finding information until they were able to do it on their own. The Dewey Decimal Classification System was also taught as a part of the purchased curriculum, but was not integrated into any subject area.

Six of the parents noted that they checked out large amounts of library materials, and then narrowed them down into a more manageable number at home. Often the collection of books at

the library could be overwhelming, especially to younger students. This also gave the parent time to discuss with the children which resources were most appropriate for the child's style of research.

Many times, the public librarian was also helpful in guiding home schooled students to locate books in the library. She often provided instruction, not only on an as-needed basis, but periodically conducted a formal tour and library instruction session for the home schooled students who were interested in attending. Usually, this instruction only pertained to access skills, not the total research process.

If there was a problem locating an adequate number of resources, over 3/4 of the parents indicated that their children would either use interlibrary loan to access more library materials, or else change their topic. Five parents said that they would help their children find ways to broaden their topic. Other options used by home schooled students were to go to another library, use an alternative resource, such as the internet, purchase the needed materials for their personal library, or else, just go with what's available.

Having too many resources was not a common occurrence, but all of the parents said that their children pick and choose which library materials were most appropriate and useful for their projects. Since they wanted to choose the resources with the best

information, they were very discriminatory and weeded out resources by evaluating them closely.

Half of the parents noted that if the project appeared to be too overwhelming their children would narrow the topic to make it more manageable. This usually happened through a discussion between parent and child, once the child had done some preliminary investigation of the topic.

Additional Media and Resources

Other library resources used for individual projects were videotapes, magazines, and some type of computerized encyclopedia. Over 90% of the participating families used one or more of these three resources.

Table 1: Use of Electronic Resources

Family #	Electronic Encyclopedia	Other CD-ROM References	Electronic Periodical Indexes	Internet	None
1	1	0	0	0	0
2	1	1	1	1	0
3	1	1	0	1	0
4	0	0	0	0	1
5	1	0	0	1	0
6	1	0	0	1	0
7	1	0	0	1	0
8	1	0	0	0	0
9	1	0	0	0	0
10	1	0	0	1	0
11	1	0	0	0	0
12	1	0	0	0	0
13	1	0	0	1	0
14	1	1	1	1	0
TOTAL	**13**	**3**	**2**	**8**	**1**

As indicated by Table 1, all except one of the families used some type of electronic encyclopedia as an additional resource, while over half take advantage of internet access. Both of these resources were available at the public library, but many families had a personal computer, with nine of them owning an encyclopedia on CD-ROM, and six having internet access at home. Only three of the parents were aware of the various CD-ROM resources and periodical indexes available to them at the public library. In order to be successful at finding information in these resources, the children have come to understand electronic searching, which they've learned from other home schooled students who have become experts through experience. Some parents did teach their children how to use a periodical index, but only the paper copy was used.

Non-library resources used by over half of the students were personal interviews and field trips. Forty-three per cent of the families had internet access; internet searching strategies were predominantly learned through trial and error experience or from a peer. Four of the families also accessed special television programs produced by the Iowa Public Television network; curriculum guides provided by the station were employed as well.

Evaluating Resources for Appropriateness

Once the resources were located and found, over 85% of the parents taught their children to evaluate which were most

appropriate for them. The students were taught to first consider the physical aspects of the resources, such as the table of contents, index, and pictures to ascertain at a superficial level whether the resource will be helpful. They also skimmed a few pages to find out if the text was written at an appropriate reading level, and if the language was understandable. The children asked questions to decide if the library materials were current, appropriate to their age, and contained the type of information needed to solve the problem. They wanted to choose resources that targeted the information sought, and had the necessary details. For seven of these home schooled families, an important criterion used to evaluate resources was whether or not it had a Christian perspective, or the same world view that was being taught at home. Only two parents indicated that their children learned how to evaluate resources by the purchased curriculum.

Note taking and Use of Information

When taking notes, 70% of the children wrote important facts on notebook paper, which was then kept in a notebook or folder. Only 20% of them wrote notes on index cards and put them in sequential order. One parent said that her children were not good note takers, but they had "incredible memories." If they needed to remember some type of information, they just marked the important pages in the proper book so they could find it at a later date.

Outlining was another way that these children took notes and organized their information. Six of the parents interviewed said that since their children did not often sit and listen to formal lectures, they usually required them to take notes in church while listening to the sermon.

Four parents teaching younger children added that they guided their children to look for answers to specific questions, and then asked them to write the information found in an organized fashion. As indicated throughout the responses, 85% of the parents teach their own children note taking skills; the rest learn note taking and outlining as isolated steps within the purchased curriculum.

Communication of Information

The home schooled students interviewed communicated information gleaned from their research in a variety of ways. It appeared that not many were paper and pencil oriented. Only half of them produced written reports; these students were usually of the junior or senior high school ages. One of the home schooling moms has organized a newsletter which has been circulated within their support group. Most of the children contributed to the newsletter by writing stories, poems, articles and essays on different topics. Sometimes book reports were written.

More often the students presented their information orally, either by communicating to their family group, in a one-on-one discussion with a parent, or by a speech to their home school networking group. Over 85% of the children shared knowledge within this group. They organized their presentations by outlining the speech on 3 X 5 note cards, and designed a visual, dressed up in costume, or created whatever could be used to make the speech more interesting to their audience.

Several children belonged to 4-H groups, and presented their information to other 4-H members. Four of the families told how they had formed smaller groups to conduct unit studies on topics like Native Americans. The children then shared what they'd learned with the other children in this more intimate group. Other ways these children communicated their acquired facts were to create videos, write in journals, make dioramas or notebooks on a particular subject, construct models, draw, or even teach a younger sibling.

Evaluation of Product and Process

Even though self-evaluation should be an important part of the research process, this is one area the home schooled students were lacking. When asked about how their children's work was evaluated, over 90% of the parents responded that they evaluated research projects in a one-on-one discussion situation with the

children. During that time they assessed the process as well as the finished product, and considered what worked, what didn't, and how the project could have been improved. Only two parents noted that they set criteria prior to assigning any supplemental project.

Most parents said that they critiqued any written projects done by their children, especially the final draft of writing. Sometimes the children evaluated each other. Only one parent talked about her children formally evaluating projects on an individual basis; another mom indicated that her children just know in their hearts whether they've done a good job. Four of the parents who used the Bob Jones curriculum said that the curriculum often self-checks work that has been done.

When asked how they knew their children were improving in the skills of information retrieval and use, every parent's response was when their children were better able to locate and use materials independently with less reliance on an adult, and that they seemed more comfortable with the process. Over half of them said that they saw year-by-year progress and that they noticed their children were more at ease in putting it all together. The projects seemed to be completed more quickly, the children's thought processes were more organized and they were better able to communicate their ideas through writing. In addition, the children

had the ability to express why the resources they'd collected were the most useful and appropriate to the topic.

Table 2: Effect of Curriculum Source on How Information
Problem Solving is Taught

Source	Part of Process	Separately as Content	Total
Purchased curriculum	2	5	7
Purchased curriculum supplemented by parent planning	4	0	4
Parent planned	3	0	3
Total	9	5	14

Table 2 shows how the curricular style of each parent effected the way that information problem solving was taught. As previously noted, half of the home schooling parents approached their children's instruction through the use of a purchased curriculum. The other fifty per cent creatively designed their own curriculum to suit their needs and the needs of their children. This research indicated that the parents who planned their own curriculum, whether by supplementing a purchased curriculum with their own assignments and projects, or by using no curricular package at all, taught their children the skills of doing research as a process, integrated within all aspects of the curriculum. Only two

of the parents who relied on a purchased curriculum taught information problem solving as a process; children from the other five families learned these skills separately, as content.

Parents' Viewpoints

Upon completion of the interview the parents were asked what research skills they felt their children were lacking. Most parents felt that with more experience came more expertise; the older children were more comfortable with information search and use, even though the skills could be fine-tuned. The consensus was that younger kids were probably not lacking for the age they were at; they just needed more guidance because they haven't had as much experience as the older children.

Three of the parents indicated their desire for their children to do more in-depth projects, to the extent of learning how to conduct more "formal" research projects. One parent even said that a goal for her children during the next school year was to assign a written research   paper.

According to these parents, other skills that were lacking included expertise in periodical indexes, namely the Reader's Guide to Periodical Literature, and search strategies for effective use of the electronic encyclopedia, the internet, and other computerized indexes. Parents also felt that their children were too easily satisfied with what resources were at hand. To them, their children

lacked motivation, and gave up too easily when faced with limited sources; the children needed more confidence in finding information on their own. One parent, who had just experienced her first year of home schooling said she realized that her children were lacking in all aspects of information problem solving. She said that during this first year they have just followed the formal curriculum and researching has been non-existent.

Summary of Analysis

In summary, this study indicated that a large majority of the home schooled students interviewed conduct research on a regular basis, and that they all used the public library for pleasure reading and information. While half of the projects assigned were an extension of the curriculum (whether purchased or parent-planned), the other half of the time students chose topics on the basis of interest. Skills to conduct research were taught by the parent educators, and were integrated into a total process (ie. as the children are searching for information, they are learning the skills of doing research). Even though information problem solving was predominantly taught as a process, these children have mainly learned the traditional methods of accessing information, the card catalog, and the Dewey Classification System. Although over ninety per cent have used CD-ROM resources or the internet, they still have not learned effective search strategies.

Most of the parents interviewed were confident in their children's abilities to solve information problems. They have observed that their children are progressing in the skills of finding information, becoming more at ease with the research process. This was especially true of the older students, who have had more experience with doing research than their younger brothers and sisters. According to these parents, home schooling was an effective alternative teaching method, which will enable their children to be prepared for life and the workplaces of the twenty-first century.

CHAPTER 5

Conclusions and Suggestions for Further Research

This research was conducted to investigate the library/information skills curriculum of home schooled students in order to learn if they were taught as part of a process, and whether electronic search strategies were also included. After interviewing home schooled parents about their children's skills of information access and use, five conclusions were reached.

Conclusions

First, it was discovered that considerable research is done by these home schooled students, either as a supplement to the curriculum, or to pursue some topic of interest. The children produced a variety of interesting projects, even though traditional written research papers were not normally assigned. Information was generally presented to the home school networking group either as a speech with visuals, or in a common newsletter published by one of the parents. All of the students accessed the public library for resources; the predominant materials being books, videotapes and magazines.

A second finding was that although the public librarian gave minimal instruction, the skills of doing research were generally taught by the home schooling parents; the few parents who strictly adhere to a purchased curriculum, relied on the curriculum to supply

the instruction. Also, those parents who have had more experience in home schooling, were generally those who planned their own curriculum, and gave their children more opportunities to conduct research. Therefore, their children gradually became more competent and confident at searching for information, and were ultimately more capable of conducting research independently.

The third conclusion indicated by this research was that when the curriculum was predominantly parent-planned, the skills of information access and use were more apt to be taught as a total process. In addition to information problem solving being taught as a process, the skills were taught along with the subject matter, so students were able to learn the process, at the same time as they were doing the research.

The fourth finding was that even though over three-fourths of the parents assigned non-traditional projects, their children still primarily did research in the traditional manner. The card catalog, and Dewey Classification System were the ways children located materials for research, and most of their information was gleaned from print materials, books being the principle sources. Even though over ninety per cent used electronic encyclopedias, and over half used the internet, other CD-ROM resources were not used. Even the skills of note taking were generally the traditional pencil and notebook method.

Lastly, not indicated by the parents, but noted by the researcher were two areas that these home schooled students were lacking. The first deals with one aspect of the information problem solving process, namely, evaluation, the second with the availability, but lack of use of technological resources.

Although the children were given opportunities to choose their own projects, and even made decisions about the structure of the process and what the final product would be, they did not evaluate their own work. For the most part, parents assessed their children's work, usually in a one-on-one setting with each child. The students themselves did little or no self-evaluation at the completion of their research, either of the product or the process.

Also, very few of the home schooled students had much knowledge of electronic resources, indexes, or electronic searching strategies, all of which were available at the public library, with the library staff willing and able to give any necessary instruction. Even in this technological age, with an overwhelming supply of electronic resources readily available, home schooling parents have not made the effort to offer their children access to the world of knowledge right at their fingertips.

Suggestions for Further Research

Because this research was limited to the college town of Grinnell, Iowa, and the surrounding area, any conclusions found will

only be true for participants from a similar locality. Further research could be conducted throughout the state of Iowa, or on a regional basis to determine the information literacy skills of home schooled children from differing communities.

Also, since the majority of families interviewed chose to home school their children for religious reasons, this research can only be applicable to groups with a similar personality. In addition to researching other localities, the information skills curriculum could be investigated of children who are home schooled due to reasons other than religious ones. Of particular interest could be pedagogical-type parent, identified by Van Galen, or those that home school because they disagree with the instructional techniques of public schools.

Another suggestion for further research could be a comparison study of students whose total educational experience has been a purchased curriculum, with students who have been provided with a parent-planned curriculum. Findings might be that students who learn from a purchased curricular package would have an information skills deficit, while those with skills taught as an integrated process, would have a well-rounded knowledge of the skills of information problem solving.

Lastly, one of the major findings of this research was that home schooled students have limited use of technological resources, such as CD-ROM references and the internet, and their instruction in how to execute electronic search strategies is inadequate. Additional research could be conducted to investigate why home schooled students are not using electronic resources, be it due to the expense of technological equipment, that parents don't wish for their children to be exposed to inappropriate information, or other varied reasons. In this information age, computer literacy is an essential component of information literacy. Rather than thinking of technology as an add-on to the curriculum, we must begin "to think of it as another method of teaching the curriculum already in place" (Baldwin and Schulman, 1992, p. 9). Knowing how to operate a computer and understanding what computer hardware and software can do, as well as the basics of the electronic search process provides a good basis for information skills (Kuhlthau, 1987, p. 4). By exposing children to information in a variety of formats, students can become aware of the information sources available to them. Students also need to feel at ease with computer networks, online catalogs and telecommunications systems which are becoming basic in any educational program (Mancall et al, 1986).

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Appendix A: Interview Questions

Background Information

1.   How many home-schooled children are in your family and what
are their ages?

2.   How long have you been teaching your children at home?

3.   Why have you made the decision to home school?

4.   Describe your homeschool experience (daily routine, successes,
problems, etc.)

5.   If your children are registered with the school district wherein
you reside, what school opportunities and resources do you take
advantage of?

6.   What type of curriculum do you use when teaching your children,
predominently parent-planned or purchased?   If purchased, which
publishing company?

Information Problem Solving Process

1. Tell about the kinds of supplemental projects your children are
assigned.

Are these projects usually suggested by the curriculum, or
assigned by you?

2.   How do your children choose a topic they want to explore for
supplemental research?

3. How do you make use of the libraries available to you?

Do you usually frequent public or school libraries?

4. How do your children identify the resources needed for individual
projects?

5. Once the resources are identified, how do your children find the necessary materials?

6. What do your children do if they can't find enough resources?

7. What do your children do if they find too many resources?

8. What kinds of resources besides reference materials and non-fiction books are used by your children?

    How do your children find these other resources?

9. How does your curriculum teach your children to evaluate the resources they find?

    If not taught within the curriculum, do you teach them? If so, how?

10. How do your children take notes?

11. How do your children communicate what they've learned?

12. How does your curriculum provide for your student to do self-evaluation of projects?

    If it doesn't, do you? How?

13. How do you know that your children are improving in the skills of information use?

14. Are there any research skills that your children may be lacking?

Appendix B: Profiles of Home Schooling Families in Study

Family #	Number of home schooled children	Ages of children	No. of years practicing	Reasons given to home school	Primary teacher	Type(s) of curriculum
One	6	5, 6, 9, 12, 14, 17	13	Responsibility as Christian parents	Mother	Combination of parent-planning with some purchased curriciculum; Variety of experiences
Two	1	14	6	Moral/social issues	Mother	Mixture from parents, school textbooks and purchased curriculum
Three	5	4, 6, 11, 13, 16	13	Keep family unit in focus; Also, fear of boys being developmentally immature and struggling in school	Mother	Parent-planned; History is core of curriculum Use WHOLE approach to learning-everything interconnected Saxon Math
Four	3	Twins -12, and 6	2	More control over what children were learning; Conflicts with school	Mother	Combination of different curricular companies

Appendix B: Profile of Home Schooling Families in Study

Family #	Number of home schooled children	Ages of children	No. of years practicing	Reasons given to home school	Primary teacher	Type(s) of curriculum
Five	5	5, 7, 9, 11, 13	5	Biblical teaching - parents responsible for children's education	Mother	Parent-planned Literature-based with lots of unit studies Saxon math
Six	5	Twins - 6, 8, 10, 12	7	More time as family; Christ-centered home	Mother	All purchased curricula
Seven	5	5, 7, 9, 11, 13	10	Missionary family; continued home schooling when returned to states	Mother	Parent-planned; History and literature-based Saxon math
Eight	3	11, 13, 15	1 0	Own values transferred to children; family bonding Farm work part of school experience - real-life world of work	Mother; Dad - math	Variety of purchased curricula; Also unit studies with other home schooling families
Nine	2	8, 10	1	Moral, religious decision; Offers children more individualized attention	Mother	Purchased curriculum; parent plans some supplemental units (offshoot of curriculum)

Appendix B: Profile of Home Schooling Families in Study

Family #	Number of home schooled children	Ages of children	No. of years practicing	Reasons given to home school	Primary teacher	Type(s) of curriculum
Ten	2	9, 14	1	God's will for family	Mother	Basic skills through Bob Jones; Unit studies for supplemental research
Eleven	2	8, 11	1	Felt Lord leading; wanted to focus on Biblical teachings, religious values	Mother	Total purchased curriculum - Bob Jones Saxon Math
Twelve	2	13, 14	5	Christian school only until 4th grade; wanted to continue Biblically based education	Mother and Grand-mother	Purchased curriculum; Bob Jones Saxon Math
Thirteen	2	9, 15	1	Unhappy with social aspect of public school; teach own values Persuaded by home schooling friend to give it a try	Mother	Combination of purchased curriculum and parent-planned; History-based
Fourteen	2	5, 8	2	Family togetherness; Not ready to send young children to public school Desire for children to learn religious values	Mother	Purchased curricula; Some investigation of topics interesting to children; suggestions by curriculum

Appendix C: Informed Consent Form

The purpose of this study is to investigate the information problem solving skills curriculum of home schooled students who live in four Iowa school districts and whose parents belong to a home school networking group. By learning more about this aspect of home education we hope to further the development of educational practices to benefit all children -- not just those who are educated at home.

Data will be collected through an interview questionnaire. An unstructured interview session will be conducted personally with each participant family. The home schooled student(s) will also be asked to participate in the interview. All questions asked will be open-ended to prevent bias. The interview sessions and ensuing discussion will be audio-taped for transcription at a later date.

Participation in this research is voluntary and subjects may discontinue participation at any time. The names of all parents and children interviewed will be kept confidential, and all data will be destroyed upon completion of the project.

This research is being conducted by Jacquelyn M. Stoakes (515-236-4201) in partial fulfillment of the requirements for the degree Master of Arts, Department of Library Science. Faculty advisor for this project is Dr. Barbara Safford, (319-273-7551). Questions about this research and the rights of research subjects may be answered by contacting the office of the Human Subjects Coordinator, University of Northern Iowa, (319) 273-2748.

Please read the following statement and sign this form if you agree to the terms stated:

I am fully aware of the nature and extent of my participation in this project as stated above. I hereby agree to participate in this project, and give my permission to have the interview session audio-taped. I acknowledge that I have received a copy of this consent statement.

_____

(Signature of subject or responsible agent)   Date

_____

(Printed name of subject)

_____

(Signature of investigator)

Appendix D: Summarized Transcripts of Questionnaires

Interview Questions - Family 1

Background Information

1. How many home-schooled children are in your family and what are their ages?
   Six children; ages 5, 6, 9, 12, 14, 17

2. How long have you been teaching your children at home?
   Began with oldest child 13 years ago

3. Why have you made the decision to home school?
   Multiple reasons:
   Nurture and admonition of the Lord - responsibility of parents
   Wanted to send to Christian school - long distance for a kindergartner

4. Describe your home school experience (daily routine, successes, problems, etc.)
   Varies as children grow
   Older boys have a paper route so the younger three work first, older in afternoon
   Curriculum - geared toward classroom
   First started with Bob Jones; now use a variety of publishers as well as some unit studies
   Also correspondence school for older children
   Adult ed. computer courses

5. If your children are registered with the school district wherein you reside, what school opportunities and resources do you take advantage of?
   Choir, sports, musicals

6. What type of curriculum do you use when teaching your children, predominantly parent-planned or purchased? If purchased, which publishing company?
   Bob Jones, some Accelerated Christian Education, Abeka and Saxon math, used textbooks. especially for social studies. algebra videos, Konos - unit studies
   Hands-on video tapes. and audio cassette tapes

Information Problem Solving Process

1. Tell about the kinds of supplemental projects your children are assigned.

    Unit studies - Indians, senses
    Book reports, author studies, artist studies, literature
    Family vacations - research prior to trip
    Computers
    Magazines - 321 Contact, Science on a Shoestring
    Check out books that add to what was presented in curriculum

    Are these projects usually suggested by the curriculum, or assigned by you?

    Assigned by Mom - most of the time
    Unit studies also assigned

2. How do your children choose a topic they want to explore for supplemental research?

    Children choose by their own interest

3. How do you make use of the libraries available to you?

    Public - mainly children's library

    Do you usually frequent public or school libraries?

    Public

4. How do your children identify the resources needed for individual projects?

    Card catalog, periodicals, know subject areas, asking questions,
    browsing

5. Once the resources are identified, how do your children find the necessary materials?

    Dewey Decimal System, public librarian is an excellent resource, borrow from
    Area Education Agency 6

6. What do your children do if they can't find enough resources?

    Broaden topic or use what they have
    Recommended books in curriculum - AEA 6 or interlibrary loan

7. What do your children do if they find too many resources?
    Sometimes too many resources is overwhelming, narrow topic, skim resources to determine value of information

8. What kinds of resources besides reference materials and non-fiction books are used by your children?
    Classical music, computer encyclopedia, magazines, audiotapes, videotapes, artwork for artist studies

    How do your children find these other resources?
    Own a computer and multi-media encyclopedia; explore library

9. How does your curriculum teach your children to evaluate the resources they find?
    Bob Jones - Biblical perspective vs. world view - evolution

    If not taught within the curriculum, do you teach them? If so, how?

10. How do your children take notes?
    Notebook paper, parent walks kids through process when doing research papers; sometimes note cards

11. How do your children communicate what they've learned?
    Orally, act it out, diagrams, present to home school group, some book reports, written reports, family group

12. How does your curriculum provide for your student to do self-evaluation of projects?
    English curriculum - self checks

    If it doesn't, do you? How?
    Evaluate each other, self-recognition of good work - "know in their hearts they've done a good job"
    Discussion with parent

13. How do you know that your children are improving in the skills of information use?
    Complexity of process - more sources, communicate better through writing, interest - look up topics themselves, find information independently

14. Are there any research skills that your children may be lacking?

Research paper - goal for next year, able to find their way around the library, experience is the key

Interview Questions - Family 2

Background Information

1. How many home-schooled children are in your family and what are their ages?
   One child - age 14

2. How long have you been teaching your children at home?
   Six consecutive years

3. Why have you made the decision to home school?
   Unhappy with social atmosphere for older children
   More educational advantages for child; enjoyed experience and
   decided to continue

4. Describe your home school experience (daily routine, successes, problems, etc.)
   Try to get started right after breakfast, but sometimes varies according to the
   mood of child - prefer to get music practice in first
   Farm family, so there needs to be lots of flexibility - make most of winter months
   Enjoys working independently
   Good ITBS scores so we know we're doing something right
   Good to be involved in home school networking group - met kids like herself
   Prior to beginning each school year, set goals for herself

5. If your children are registered with the school district wherein you reside, what school opportunities and resources do you take advantage of?
   Music mostly; science lab for experiments; also use the computer lab weekly
   Borrow school textbooks - use if they fit goals
   TAG during elementary

6. What type of curriculum do you use when teaching your children, predominantly parent-planned or purchased? If purchased, which publishing company?
   Combination - Far Above Rubies - Christian curriculum based on
   Proverbs 31
   Saxon math
   Did use "The Weaver" for language arts, science/health
   School textbooks if they fit goals
   Supplement from public library; also have extensive library in home

Information Problem Solving Process

1. Tell about the kinds of supplemental projects your children are assigned.
One large research paper each year; other smaller projects
American Presidents - notebook

   Are these projects usually suggested by the curriculum, or assigned by you?
   Sometimes suggested by curriculum, sometimes caught fancy of child, 4-H interests

2. How do your children choose a topic they want to explore for supplemental research?
Asking questions about something of interest

3. How do you make use of the libraries available to you?
Bring lots of books home, videotapes (ie. science, Civil War)

   Do you usually frequent public or school libraries?
   Public

4. How do your children identify the resources needed for individual projects?
Card catalog, encyclopedias, Internet, computer encyclopedias

5. Once the resources are identified, how do your children find the necessary materials?
Understands Dewey Decimal system - look in section, special feature books - know what shelves to look on

6. What do your children do if they can't find enough resources?
Abridge project

7. What do your children do if they find too many resources?
Set a goal

8. What kinds of resources besides reference materials and non-fiction books are used by your children?
Real-life experience - talking to adults, Internet, computer

How do your children find these other resources?
Stumble into them, borrow from friends
Internet, computer encyclopedia - understand search engines

9. How does your curriculum teach your children to evaluate the resources they find?
Doesn't

If not taught within the curriculum, do you teach them? If so, how?
Talk about what information is necessary for project, match to
appropriate resources

10. How do your children take notes?
Reading through text - use index cards, write down outline ahead of time
Composition book taught procedures

11. How do your children communicate what they've learned?
Usually written paper or report
Sometimes presentations to group

12. How does your curriculum provide for your student to do self-evaluation of projects?
Doesn't

If it doesn't, do you? How?
Child usually corrects and edits own paper usually according to
criteria set by mom
Parent and child talk together

13. How do you know that your children are improving in the skills of information use?
End product is more polished
She's more comfortable putting it together, getting done faster

14. Are there any research skills that your children may be lacking?
Too easily satisfied with what is at hand

Interview Questions - Family 3

Background Information

1. How many home-schooled children are in your family and what are their ages?

   4 children; ages 6, 11, 13, 16

2. How long have you been teaching your children at home?

   13 years

3. Why have you made the decision to home school?

   While teaching preschool noticed boys' development lagged behind girls, and wanted boys to be successful

   Read Dr. R. Moore's books, good thoughts, decided to practice home schooling

   Keep family unit in focus - not be pulled in so many directions

4. Describe your home school experience (daily routine, successes, problems, etc.)

   Mental time - school starts at about 8:30 a.m., but time varies

   Formal group stuff a.m.; afternoon - more individual homework, one-on-one

   Used to use a bedroom for schoolroom, but needed it for kids; now use dining room, space is a problem

   Happy with home school, freedom to pursue interests; each child can specialize

5. If your children are registered with the school district wherein you reside, what school opportunities and resources do you take advantage of?

   Have a supervising teacher appointed by school district

   Use books and materials from college, supervisory teacher is a college professor; also used college lab for science experiments

   Drivers' Education for older boys

6. What type of curriculum do you use when teaching your children, predominantly parent-planned or purchased? If purchased, which publishing company?

   SAXON math - wonderful, self-teaching curriculum

   Focus on units - want to have everything orderly - know chronology; good resource are the Abeka history books (Christian perspective)

   Bob Jones - science, purchase mainly middle/high school

Information Problem Solving Process

1. Tell about the kinds of supplemental projects your children are assigned.
   Tie in all kinds of things, "whole" approach to learning, go off on all special topics
   History - core of curriculum, make costumes, acted out
   Write reports and short articles, journals, kids choose literature

   Are these projects usually suggested by the curriculum, or assigned by you?
   Both - parent assigned and by curriculum

2. How do your children choose a topic they want to explore for supplemental research?
   Interest or else some offshoot of curriculum

3. How do you make use of the libraries available to you?
   Large part of curriculum, normally books, interlibrary loan
   Read lots of historical novels; younger kids - quick and easy books

   Do you usually frequent public or school libraries?
   Public mostly, sometimes college library (older boys)

4. How do your children identify the resources needed for individual projects?
   Card catalog - discuss subject headings, help from librarian
   Mom checks out a large supply of books that kids can use

5. Once the resources are identified, how do your children find the necessary materials?
   Older kids understand shelving system, younger kids - mom helps them select
   Keep track of favorite authors - helps to select books they enjoy

6. What do your children do if they can't find enough resources?
   Go to college library; interlibrary loan

7. What do your children do if they find too many resources?
   Pick and choose most valuable information; watch for redundancy

8. What kinds of resources besides reference materials and non-fiction books are used by your children?

Prefer kids read encyclopedias, magazines of personal interests - Popular Science, Popular Mechanics -- have not learned how to use periodical guide for magazines
CD-ROM resources
internet - resource for son's business, able to check web sites
No television, so don't use video resources
Audio tapes

How do your children find these other resources?

9. How does your curriculum teach your children to evaluate the resources they find?

Doesn't

If not taught within the curriculum, do you teach them? If so, how?

Question - what detail needed, appropriate to age, summarized - not always best

10. How do your children take notes?

Not good note takers, incredible memories
Mark pages in books
Class at Marshalltown Community College

11. How do your children communicate what they've learned?

Verbally - explain, draw artistic, build things
Not paper/pencil oriented
Sometimes write articles, presentations within group - use 3 X 5 cards to outline, make visuals

12. How does your curriculum provide for your student to do self-evaluation of projects?

If it doesn't, do you? How?

If they're able to talk about what they've learned, explain to others, shows they know the material
When they've done a presentation, mom asks them to think about how could have improved it

13. How do you know that your children are improving in the skills of information use?

See year by year progress - more capable of finding out on their own

14. Are there any research skills that your children may be lacking?

Older kids - can find whatever they want; just need the motivation,
Younger - need lots more assistance

Interview Questions - Family 4

Background Information

1. How many home-schooled children are in your family and what are their ages?
   Three children; ages 6, 12 (twins)

2. How long have you been teaching your children at home?
   Just beginning third year

3. Why have you made the decision to home school?
   More control over children's education, minor conflicts with school

4. Describe your homeschool experience (daily routine, successes, problems, etc.)
   First year was difficult because of the changeover to homeschooling
   Ready to go between 9-10:00; don't stop for lunch, just go until done
   Reading and literature is a struggle; math really well, art - strength

5. If your children are registered with the school district wherein you reside, what school opportunities and resources do you take advantage of?
   Videotapes ordered from AEA 6; supervising teacher gets them

6. What type of curriculum do you use when teaching your children, predominantly parent-planned or purchased? If purchased, which publishing company?
   Combination of different curriculum companies
   SAXON math; plan to do more art this year

Information Problem Solving Process

1. Tell about the kinds of supplemental projects your children are assigned.
   Projects strengthen abilities to do research: Read biographies
   Choose author (research person and read books written by him/her)
   Endangered animals; research holiday and seasons, astrology and astronomy
   Read historical fiction to supplement learning about Colonial times
   Communications, signing and hieroglyphics
   Research the town of Grinnell and people

Are these projects usually suggested by the curriculum, or assigned by you?
Mostly assigned by mom

2. How do your children choose a topic they want to explore for supplemental research?
Interests

3. How do you make use of the libraries available to you?
Go at least once a week - check out 8 to 10 books (mostly for pleasure reading)
Videotapes; lately using computer (games and activities, not as a research tool
Don't use magazines for information; no periodical index

Do you usually frequent public or school libraries?
Public

4. How do your children identify the resources needed for individual projects?
Card catalog - use subject (books)
Wandering stacks, browsing, ask librarian

5. Once the resources are identified, how do your children find the necessary materials?
Understand Dewey Decimal system and are able to find books on the
shelves

6. What do your children do if they can't find enough resources?
College library, check with librarian, change topics

7. What do your children do if they find too many resources?
Narrow down, limit topic

8. What kinds of resources besides reference materials and non-fiction books are used by your children?
Videotapes, interview Grinnell residents, field trips

How do your children find these other resources?
Public library

9. How does your curriculum teach your children to evaluate the resources they find?
   Doesn't

   If not taught within the curriculum, do you teach them? If so, how?
   Understandable languages, age appropriate, most information, pictures

10. How do your children take notes?
    Paper or 3 X 5 cards, number - put in order
    Choose most important facts and write down

11. How do your children communicate what they've learned?
    Written report - oral book reports, sometimes to teacher, sometimes
    to each other
    Fiction book - act it out

12. How does your curriculum provide for your student to do self-evaluation of projects?
    Editing final draft of writing in reports

    If it doesn't, do you? How?

13. How do you know that your children are improving in the skills of information use?
    They don't give up so easily, more in-depth projects

14. Are there any research skills that your children may be lacking?
    Length of papers
    Not self-motivated; need someone to steer them in the right direction

Interview Questions - Family 5

Background Information

1. How many home-schooled children are in your family and what are their ages?
    5 children; ages 5, 7, 9, 11, 13

2. How long have you been teaching your children at home?
    Just completed fifth year

3. Why have you made the decision to home school?
    Responsibility as Christian parents

4. Describe your home school experience (daily routine, successes, problems, etc.)
    Good experience, kids enjoy learning
    Lives have changed - school, education more than a school day
    Involves whole family, older kids - more independent
    Start a.m. - planned activities, unit studies
    Sometimes best-laid structure goes awry

5. If your children are registered with the school district wherein you reside, what school opportunities and resources do you take advantage of?
    AEA 6 to borrow materials - mainly books and videotapes - pick up and drop them off at school

6. What type of curriculum do you use when teaching your children, predominantly parent-planned or purchased? If purchased, which publishing company?
    Mixture of parent-planned and purchased curriculum
    Saxon math, Abeka - U.S. history and biology
    Pathway readers - basal reader; Rod & Staff - reading phonics
    Literature based, unit studies - use library

Information Problem Solving Process

1. Tell about the kinds of supplemental projects your children are assigned.
   Indian Unit - specific tribes - comparisons, constructed tepee, foods, pottery
   Lots of art
   Explorers - navigation
   Human body
   Colonial period

   Are these projects usually suggested by the curriculum, or assigned by you?
   Assigned by parent; supplement curriculum

2. How do your children choose a topic they want to explore for supplemental research?
   Kids ages 10,12 required to do several projects - given choice of several topics
   Try to do a variety of assignments

3. How do you make use of the libraries available to you?
   Frequent the library, supplements curriculum
   Reading - literature, extensively - fun-time reading
   Lots of books, games, puzzles
   Computer activities, videos, interlibrary loan

   Do you usually frequent public or school libraries?
   Public

4. How do your children identify the resources needed for individual projects?
   Key goal - question - where can I find information?
   Discuss card catalog, what kind of information wanted

5. Once the resources are identified, how do your children find the necessary materials?
   Parent going with them, discuss with parent
   Older kids know and understand where materials are on the shelves

6. What do your children do if they can't find enough resources?
   Interlibrary loan

7. What do your children do if they find too many resources?
Cautious - narrow down, be very discriminatory

8. What kinds of resources besides reference materials and non-fiction books are used by your children?
Computer, internet, historical fiction, subscriptions to magazines
personal interview, college observatory, speakers at library

How do your children find these other resources?
Public library, home, parent helps

9. How does your curriculum teach your children to evaluate the resources they find?
Curriculum tells; mom helps children practice

If not taught within the curriculum, do you teach them? If so, how?
Questioning, factual textbooks and encyclopedias
Go back to what they want to find out
Younger - fiction vs. non-fiction

10. How do your children take notes?
Oldest - write in a notebook, make an outline
Younger- not age appropriate

11. How do your children communicate what they've learned?
Share with family, especially more hands-on type, presented out loud,
present to networking group, teach smaller kids - experience working

12. How does your curriculum provide for your student to do self-evaluation of projects?

If it doesn't, do you? How?
Mom has forms - evaluate - neatness, content; kids rate themselves

13. How do you know that your children are improving in the skills of information use?
Observing, finished products, more independent in finding information

14. Are there any research skills that your children may be lacking?
Age - important - just learning the difference between resources

Interview Questions - Family 6

Background Information

1. How many home-schooled children are in your family and what are their ages?

   5 children; ages 6, 6 (twins), 8,10,12

2. How long have you been teaching your children at home?

   Seven years

3. Why have you made the decision to home school?

   Older sister - home schools
   Desire to use Christian textbooks
   Spend more time as a family - more parental influence rather than
   school

4. Describe your homeschool experience (daily routine, successes, problems, etc.)

   Have tried different ways - need to fit Mom's personality
   Now do more workbook oriented studies - need drill, especially in Math
   Have one room just for schoolwork

5. If your children are registered with the school district wherein you reside, what school opportunities and resources do you take advantage of?

   Textbooks from school

6. What type of curriculum do you use when teaching your children, predominantly parent-planned or purchased? If purchased, which publishing company?

   Mixture, Abeka - mostly for Christian schools, Weaver - listed books

Information Problem Solving Process

1. Tell about the kinds of supplemental projects your children are assigned.

   Iowa history - notebook, presentation with networking group,
   Historical days
   Science fair

Are these projects usually suggested by the curriculum, or assigned by you?
Usually curricular

2. How do your children choose a topic they want to explore for supplemental research?
Most often suggested by curriculum; sometimes mom; sometimes their own interest

3. How do you make use of the libraries available to you?
Go to public library - every two weeks - mostly for free reading
When doing unit studies - every week

Do you usually frequent public or school libraries?
Public

4. How do your children identify the resources needed for individual projects?
Card catalog

5. Once the resources are identified, how do your children find the necessary materials?
Guided by Mom

6. What do your children do if they can't find enough resources?
Interlibrary loan system

7. What do your children do if they find too many resources?
Look at books - choose most appropriate, narrow down topic

8. What kinds of resources besides reference materials and non-fiction books are used by your children?
Computer encyclopedia, videos - AEA 6

How do your children find these other resources?
Computer at home, videos from AEA 6 and public library

9. How does your curriculum teach your children to evaluate the resources they find?
Look at table of contents, pictures, age level

If not taught within the curriculum, do you teach them?   If so,
how?

10. How do your children take notes?
    In language curriculum - supposed to take notes

11. How do your children communicate what they've learned?
    Discussion, written report, oral report, book reports
    Put in home school newsletter - articles, stories

12. How does your curriculum provide for your student to do self-
    evaluation of projects?
    Doesn't

    If it doesn't, do you?   How?
    Mostly discussion

13. How do you know that your children are improving in the skills of
    information use?
    Observing - seeing them do things on their own without help
    Progress - from year to year
    More organized thoughts

14. Are there any research skills that your children may be lacking?
    Possibly computer

Interview Questions - Family 7

Background Information

1. How many home-schooled children are in your family and what are their ages?

    5 children; ages 5, 7, 9,11,13

2. How long have you been teaching your children at home?

    Nine years

3. Why have you made the decision to home school?

    Both sisters home schooling
    Going overseas as missionaries, gathered kindergarten curriculum
    Enjoyed experience - continued with younger kids

4. Describe your home school experience (daily routine, successes, problems, etc.)

    Daily routine - done by noon - chores
    Lot of time in Bible
    Learned so much in history - done very well on Basic Skills
    As got older - problem getting curriculum, so started doing more and
    more on own
    Difficult to make sure time spent with each child

5. If your children are registered with the school district wherein you reside, what school opportunities and resources do you take advantage of?

    Some AEA 6 videos

6. What type of curriculum do you use when teaching your children, predominantly parent-planned or purchased? If purchased, which publishing company?

    Hodgepodge (not one individual); lots of planning by mom
    SAXON math (older); Abeka math - younger
    Literature based language arts
    History - introduction by literature; lots of research - chronology

Information Problem Solving Process

1. Tell about the kinds of supplemental projects your children are assigned.
Science/history/language arts - writing, Civil War, Greek, Egypt - costumes, picture books, archaeology, time lines

   Are these projects usually suggested by the curriculum, or assigned by you?
Suggested by both

2. How do your children choose a topic they want to explore for supplemental research?
Choice of type of project; also given choice of topic

3. How do you make use of the libraries available to you?
Check out lots of books
Interlibrary loan - book lists from curriculum
Used book sale - add to personal library

   Do you usually frequent public or school libraries?
Public

4. How do your children identify the resources needed for individual projects?
Library tour with librarian, know where things are, card catalog

5. Once the resources are identified, how do your children find the necessary materials?
Depends on age of child; older can find materials on their own, younger need help

6. What do your children do if they can't find enough resources?
Go to Internet
Choose another subject

7. What do your children do if they find too many resources?
Weed out to find most appropriate
Focus on "who" the resources come from
Mom brings lots of books home, children choose which will be helpful

8. What kinds of resources besides reference materials and non-fiction books are used by your children?
People, internet, computer, museums, field trips

How do your children find these other resources?
From Mom, younger kids - basically non-fiction books and encyclopedia
Internet - friend from networking group helps kids find information

9. How does your curriculum teach your children to evaluate the resources they find?

If not taught within the curriculum, do you teach them?   If so, how?

10. How do your children take notes?
Some note cards, usually read and write down important information

11. How do your children communicate what they've learned?
Presentation for group
Newsletter - write articles,
Orally to family, discussion
Other mediums, like costumes, story writing

12. How does your curriculum provide for your student to do self-evaluation of projects?
Sometimes will be touched on by curriculum; usually by mom

If it doesn't, do you?   How?
Very critical - discussion between Mom and kids, constantly evaluating

13. How do you know that your children are improving in the skills of information use?
How they communicate to teacher, stories, dialogue, no tests

14. Are there any research skills that your children may be lacking?
Can be honed - more confident to find information on their own
Just need "full rein"

Interview Questions - Family 8

Background Information

1. How many home-schooled children are in your family and what are their ages?
    3 children; ages 11,13,15

2. How long have you been teaching your children at home?
    Ten years

3. Why have you made the decision to home school?
    Have our own values transferred, family bonding
    Practical - work ethic, real life learning

4. Describe your home school experience (daily routine, successes, problems, etc.)
    Begin at 8:30 - academics; work until 12:00
    Afternoon - individual projects
    As they've gotten older, father teaches math in the evening
    Work around garden
    Difficulties - motivation and individual differences in kids
    Successes - children know how to work; respectful to adults; enjoy younger kids

5. If your children are registered with the school district wherein you reside, what school opportunities and resources do you take advantage of?
    None

6. What type of curriculum do you use when teaching your children, predominantly parent-planned or purchased? If purchased, which publishing company?
    Abeka - reading; Bob Jones - history and science; SAXON math, unit studies with other home school families

Information Problem Solving Process

1. Tell about the kinds of supplemental projects your children are assigned.
    Written reports in English curriculum (Pearl Harbor - written report)
    Country project; planets and solar system
    Unit studies - Colonial period

Are these projects usually suggested by the curriculum, or assigned by you?
Both; curriculum in reading and literature

2. How do your children choose a topic they want to explore for supplemental research?
List of suggestions - choose one that catches interest
Sometimes one topic assigned by mom

3. How do you make use of the libraries available to you?
Use lots of non-fiction books for unit studies; also fiction for literature and free reading
Children's Story Hour; summer reading program
Children are encouraged to read in any way

Do you usually frequent public or school libraries?
Public

4. How do your children identify the resources needed for individual projects?
Card catalog, librarian
Check out lots of books, and narrow down number according to topic

5. Once the resources are identified, how do your children find the necessary materials?
Dewey Decimal - covered in reading book

6. What do your children do if they can't find enough resources?
Probably choose another topic, interlibrary loan, magazines

7. What do your children do if they find too many resources?
Use the one that has the best, most understandable
Narrow information

8. What kinds of resources besides reference materials and non-fiction books are used by your children?
Magazines, people, Encarta Multimedia encyclopedia on computer

How do your children find these other resources?
Computer - purchased own
Magazines - own or borrow from someone else
People - mom knows

9. How does your curriculum teach your children to evaluate the resources they find?
Doesn't

If not taught within the curriculum, do you teach them? If so, how?
Veto by Mom
Find information that was usable, understandable - not hard or complicated
Should be interesting to read

10. How do your children take notes?
Mostly read and write information on 3 X 5 cards - regular term paper
Take notes on speakers/in church - notebook paper
Outline

11. How do your children communicate what they've learned?
Discussion, reports - paper
Sometimes write in workbook
Notebook on subject
Presentations at support group - make visuals

12. How does your curriculum provide for your student to do self-evaluation of projects?
Not much - sometimes discuss

13. How do you know that your children are improving in the skills of information use?
Comfortable, quality of reports, ease of finding information
Mom doesn't have to do it all

14. Are there any research skills that your children may be lacking?
Reader's Guide (periodical indexes)

Interview Questions - Family 9

Background Information

1. How many home-schooled children are in your family and what are their ages?
    Two children; ages 8 and 10

2. How long have you been teaching your children at home?
    1 year

3. Why have you made the decision to home school?
    Moral, religious decision
    Individual attention for children; not happy with # of students in
    public school classes

4. Describe your home school experience (daily routine, successes, problems, etc.)
    Usually begin right after breakfast; do most of work in the morning - but have
    become very flexible; if we have plans to go to the grocery store or the public
    library, we sometimes wait and do our work in the afternoon
    That's what's great about home schooling - having real life experiences
    Kids do some work on their own, some together
    Home schooling makes it easier to be together as a family; learn cooperation

5. If your children are registered with the school district wherein you reside, what school opportunities and resources do you take advantage of?
    Use some textbooks; supervising teacher brings materials

6. What type of curriculum do you use when teaching your children, predominantly parent-planned or purchased? If purchased, which publishing company?
    Bob Jones; Saxon math
    Parent planned some weather experiments; also oldest worked on Iowa history
    projects throughout the year

Information Problem Solving Process

1. Tell about the kinds of supplemental projects your children are assigned.

   Science experiments; will be doing more on weather

   Also geography

   Are these projects usually suggested by the curriculum, or assigned by you?

   Depends, sometimes assigned by curriculum, sometimes one of the kids just wants to investigate because they're curious

2. How do your children choose a topic they want to explore for supplemental research?

   Personal interest

   See something in the textbook, and may want to learn more about that particular topic

3. How do you make use of the libraries available to you?

   Mostly to expose children to good literature; individual reading

   Spend lots of time browsing

   Also explore an interest

   Do you usually frequent public or school libraries?

   Public

4. How do your children identify the resources needed for individual projects?

   Check card catalog

   Ask librarian

5. Once the resources are identified, how do your children find the necessary materials?

   Know how to find books on shelves; whether alphabetical or numerical

6. What do your children do if they can't find enough resources?

   Interlibrary loan

   Go to another library

7. What do your children do if they find too many resources?

   Hasn't happened

8. What kinds of resources besides reference materials and non-fiction books are used by your children?
    Magazines, newspapers, computer encyclopedia at public library
    Also videotapes and specials on PBS.

    How do your children find these other resources?
    Most at public library

9. How does your curriculum teach your children to evaluate the resources they find?
    Not in curriculum

    If not taught within the curriculum, do you teach them? Yes. If so, how?
    Get a dialog going; questioning whether appropriate for research
    Read from text

10. How do your children take notes?
    Older - practices taking notes by listening to sermon in church
    Uses pencil and paper; outlines important points
    Doesn't do much note taking for projects; learns to take notes from reading curriculum
    Younger - not really age appropriate

11. How do your children communicate what they've learned?
    Write an essay; discussion with parent
    This year did lots of hands-on learning, which will continue next year

12. How does your curriculum provide for your student to do self-evaluation of projects?
    No self-evaluation

    If it doesn't, do you? How?
    Parent evaluates through one-on-one discussion with student

13. How do you know that your children are improving in the skills of information use?
    Observing how they use resources
    Whether they just run to the person in charge, or try on their own

14. Are there any research skills that your children may be lacking?

Older child doesn't really know how to do a complete research project
Younger - not lacking for age she's at

Interview Questions - Family 10

Background Information

1. How many home-schooled children are in your family and what are their ages?
   Two girls; ages 9, 14

2. How long have you been teaching your children at home?
   Four years

3. Why have you made the decision to home school?
   Believe it's God's will for family

4. Describe your homeschool experience (daily routine, successes, problems, etc.)
   Routine - try to keep regular time to start, but sometimes need to be flexible
   Older - works on own
   Younger - needs lots of individual attention; one-on-one
   Scheduling problems - difficult to fit everything in

5. If your children are registered with the school district wherein you reside, what school opportunities and resources do you take advantage of?
   Band - stopped because difficult to stick to schedule
   Elementary library; supervising teacher is librarian there

6. What type of curriculum do you use when teaching your children, predominantly parent-planned or purchased? If purchased, which publishing company?
   Basic skills through Bob Jones; some supplemental planned by parent
   Unit studies with other home school families

Information Problem Solving Process

1. Tell about the kinds of supplemental projects your children are assigned.
   Spiders, genealogy, Utah; stem from curriculum, but not limited

Are these projects usually suggested by the curriculum, or assigned by you?
Most by curriculum; parent tries to plan some projects

2. How do your children choose a topic they want to explore for supplemental research?
Something they've read, seen in a video, someone told them about
Older child - more in-depth research
Younger child - jumps from topic to topic

3. How do you make use of the libraries available to you?
Public library mostly; librarian excellent help
Summer reading program
Interlibrary loan
Lots of videos
Computer activities

Do you usually frequent public or school libraries?
Public

4. How do your children identify the resources needed for individual projects?
Card catalog; help from librarian
Browsing for games and videos

5. Once the resources are identified, how do your children find the necessary materials?
Older - understands shelving concept; Dewey - finds resources herself
Younger - becomes overwhelmed; needs help in narrowing down

6. What do your children do if they can't find enough resources?
Interlibrary loan; another library
Possibly buy books for personal library

7. What do your children do if they find too many resources?
Bring home lots, and through discussion eliminate what won't be useful

8. What kinds of resources besides reference materials and non-fiction books are used by your children?
    Multimedia encyclopedia, interviews, internet
    Older girl - periodical guide for magazines

    How do your children find these other resources?
    Own computer and internet at home; mom provides human resources

9. How does your curriculum teach your children to evaluate the resources they find?
    Doesn't

    If not taught within the curriculum, do you teach them? If so, how?
    Children involved in process
    Sit and look at table of contents, pictures, index, chapter titles, etc.
    Discuss what's most appropriate and helpful

10. How do your children take notes?
    No note-cards
    Jot things down on notebook paper
    Mom helps younger child; write questions, look for answers in text
    Listen in church and take notes - outline important points

11. How do your children communicate what they've learned?
    Rather than head knowledge - communicate in alternative ways:
    writing a letter, art project, video, lesson for dad and mom, sister
    Some written reports
    Share with home school group
    Sometimes with just one other family

12. How does your curriculum provide for your student to do self-evaluation of projects?
    Doesn't

    If it doesn't, do you? How?
    Discuss with child process - what worked, what didn't
    Discuss finished product
    Written evaluation - content - by mom; sometimes by supervising teacher

13. How do you know that your children are improving in the skills of information use?

Less they need to have an adult "hold their hand"
Tell what information they have and why they've got it!
Focus with older child - going to college

14. Are there any research skills that your children may be lacking?

Older - comfortable with all aspects of research
Younger - still needs lots of individual help

Interview Questions - Family 11

<u>Background Information</u>

1. How many home-schooled children are in your family and what are their ages?
    Two boys; ages 8, 11

2. How long have you been teaching your children at home?
    Just completed first year

3. Why have you made the decision to home school?
    Different reasons; values basically
    Chose to teach Biblically-based; felt Lord leading
    No dissatisfaction with school system

4. Describe your homeschool experience (daily routine, successes, problems, etc.)
    Begin with "Pledge", Bible lesson, then heavy mental stuff -
    reading, math in morning
    Try to be flexible; other plans sometimes take priority - then work
    later in the day, or more next day
    Going to the store, public library - learning experiences

5. If your children are registered with the school district wherein you reside, what school opportunities and resources do you take advantage of?
    Supervising teacher provided
    Band, P.E., art, choir
    ITBS

6. What type of curriculum do you use when teaching your children, predominantly parent-planned or purchased? If purchased, which publishing company?
    Mixture of publishing companies
    Konos unit studies - social studies, science, some reading
    Bob Jones - language arts
    Saxon math - older boy; younger - math textbook from public school
    Mavis Beacon - computer keyboarding

Information Problem Solving Process

1. Tell about the kinds of supplemental projects your children are assigned.
   Research on eagles - field trips to Red Rock; kept journal
   Atlas work
   Projects dealing with Iowa history (older)

   Are these projects usually suggested by the curriculum, or assigned by you?
   Usually correlated with curriculum

2. How do your children choose a topic they want to explore for supplemental research?
   Interest - did not do much research this first year

3. How do you make use of the libraries available to you?
   Get reading material, videos
   Younger - more non-fiction
   Older - avid fiction reader

   Do you usually frequent public or school libraries?
   Public - mainly Stewart Library in Grinnell
           sometimes Brooklyn Public Library

4. How do your children identify the resources needed for individual projects?
   Lessons in card catalog as part of reading curriculum; not much real
   practice - mom checks out most books for research

5. Once the resources are identified, how do your children find the necessary materials?
   Know how to find what they want just from being in the library so often

6. What do your children do if they can't find enough resources?
   Make do with what is readily available

7. What do your children do if they find too many resources?
   Not been a problem; just pick and choose

8. What kinds of resources besides reference materials and non-fiction books are used by your children?

Multimedia encyclopedia
No internet; bad influence
Videotapes
Iowa public television - have a curriculum guide from AEA 6

How do your children find these other resources?

Own computer
Videos from AEA 6 and public library

9. How does your curriculum teach your children to evaluate the resources they find?

Older child has had curricular lessons on criteria for choosing
resources

If not taught within the curriculum, do you teach them? If so, how?

Also discussion with parent - questioning, deductive reasoning

10. How do your children take notes?

Learn through language arts; ask questions, then read and write
important information on notebook paper
Listen and take notes in church service - outline main points

11. How do your children communicate what they've learned?

Share in the home school group - write in monthly newsletter
Written report
Tell dad when he comes home from work

12. How does your curriculum provide for your student to do self-evaluation of projects?

Kids don't formally evaluate themselves

If it doesn't, do you? How?

Sometimes discuss with family

13. How do you know that your children are improving in the skills of information use?

When they're able to locate the materials without help

14. Are there any research skills that your children may be lacking?
  Definitely - just learning
  Research is almost non-existent
  Looking forward to next year; will try different learning activities -
  possibly more research

Interview Questions - Family 12

Background Information

1. How many home-schooled children are in your family and what are their ages?
   Two girls; ages 13, and 14

2. How long have you been teaching your children at home?
   Four years

3. Why have you made the decision to home school?
   Children went to Christian school until 4th grade; highest grade available
   Desire to continue educating children through Bible-based teaching

4. Describe your homeschool experience (daily routine, successes, problems, etc.)
   Mom and grandmother share teaching duties because mom works part-time as a nurse
   Usually do all schoolwork in the a.m., unless adult is busy, then work around her schedule - very flexible
   Girls pretty self-sufficient - do a lot on their own
   Girls have been helping at public library story time; work around that
   Struggle to maintain consistency because of mom working
   Plan to send girls to public school next year

5. If your children are registered with the school district wherein you reside, what school opportunities and resources do you take advantage of?
   Home school supervising teacher assigned by district (grandparent had a teaching degree, but is no longer certified)
   Band lessons, choir

6. What type of curriculum do you use when teaching your children, predominantly parent-planned or purchased? If purchased, which publishing company?
   Bob Jones for most of basis skills; except Saxon math
   Konos unit studies

Information Problem Solving Process

1. Tell about the kinds of supplemental projects your children are assigned.
   Mostly come from curriculum - biographies, more detailed information about historical topics, people, time periods in history
   Learning about different countries
   Reports about topics of interest
   Unit studies - Native Americans

   Are these projects usually suggested by the curriculum, or assigned by you?
   Suggested by the curriculum

2. How do your children choose a topic they want to explore for supplemental research?
   Choose from a list suggested by the curriculum
   Brainstorm several topics -- pick favorite

3. How do you make use of the libraries available to you?
   Literature - check out large numbers of books for personal reading
   Videotapes and audiotapes
   Computer activities and encyclopedia
   Help out in preschool story time

   Do you usually frequent public or school libraries?
   Public

4. How do your children identify the resources needed for individual projects?
   Card catalog - has been taught in the reading curriculum
   Help from public librarian
   Suggestions from parent; discuss subject headings

5. Once the resources are identified, how do your children find the necessary materials?
   Know what areas to look in to find books - know about fiction, non-fiction (decimal numbers), biography and encyclopedias
   Understand that books in same categories are in the same location

6. What do your children do if they can't find enough resources?
    Interlibrary loan or use what's available
    Sometimes public librarian will purchase requested books
    See if other families have particular materials in their personal
    library

7. What do your children do if they find too many resources?
    Pick and choose what's most helpful
    Check to see if it's on bibliography list from purchased curriculum
    Narrow topic to make it more manageable

8. What kinds of resources besides reference materials and non-fiction books are used by your children?
    Computer encyclopedia, interview people, videotapes
    Only use magazines for pleasure reading, not as a resource
    No internet

    How do your children find these other resources?
    Suggestions from parent teacher or public librarian

9. How does your curriculum teach your children to evaluate the resources they find?
    Doesn't

    If not taught within the curriculum, do you teach them?   If so, how?
    Skim to find out if they can read it - does it have information needed
    to answer questions? (check index, table of contents)
    Check against curriculum - Christian perspective

10. How do your children take notes?
    Write important facts on notebook paper - taught by curriculum
    Use same technique when looking up information for reports

11. How do your children communicate what they've learned?
    Written reports *
    Speech to one another
    Art project - diorama, poster

12. How does your curriculum provide for your student to do self-evaluation of projects?
    Curriculum is self-checking

If it doesn't, do you? How?

Parent evaluates written reports
Girls critique each other; proof-read for grammatical and spelling errors
Don't really evaluate self

13. How do you know that your children are improving in the skills of
    information use?

    Don't ask for help all the time

    Able to locate and use materials independently - more quickly

14. Are there any research skills that your children may be lacking?

    Know how to find information but don't always "dig deep" to find
    resources that are not readily available; sometimes rely too much
    on adult expertise
    Need to practice researching for a "formal" paper - preparation for high school;
    learn how to use computer resources other than encyclopedia

Interview Questions - Family 13

Background Information

1. How many home-schooled children are in your family and what are their ages?
   Two children; ages 5, 8

2. How long have you been teaching your children at home?
   Three years - started when the oldest was in kindergarten

3. Why have you made the decision to home school?
   Several families in church home school - not ready to send young child to public school, so decided to practice home schooling myself
   Wanted child to learn in a Christian atmosphere - learn Biblical values

4. Describe your homeschool experience (daily routine, successes, problems, etc.)
   Start right away after breakfast and chores; school work usually completed in the morning - less time spent with younger child, teaching becoming more complex as kids become older
   Use afternoon for less formal educational experiences - shopping, library, field trips, visiting, making cookies, etc.

5. If your children are registered with the school district wherein you reside, what school opportunities and resources do you take advantage of?
   Supervising teacher appointed by school district

6. What type of curriculum do you use when teaching your children, predominently parent-planned or purchased? If purchased, which publishing company?
   Almost all purchased - Bob Jones and Abeka
   This past year started planning and assigning some simple projects

<u>Information Problem Solving Process</u>

1. Tell about the kinds of supplemental projects your children are assigned.
   Learn about animals, seasons, planets, sign language, holidays
   Science experiments
   Other places in the world (where church missionaries are)

   Are these projects usually suggested by the curriculum, or assigned by you?
   Curriculum; sometimes assigned by parent

2. How do your children choose a topic they want to explore for supplemental research?
   Something interesting we've read or seen on T.V.
   Mostly an extension of curriculum

3. How do you make use of the libraries available to you?
   Check out lots of books - pleasure reading and information (weekly trip)
   Videotapes, audio tapes & books, games, puzzies, computer activities
   When they were younger, went to weekly story time; now summer
   reading program, other special programs (speakers, art activities,
   films, etc.)

   Do you usually frequent public or school libraries?
   Public

4. How do your children identify the resources needed for individual projects?
   Mom looks in card catalog - looks for books on subjects needed
   Just starting to teach older child how to use (not yet in Language Arts curriculum)

5. Once the resources are identified, how do your children find the necessary materials?
   Kids know that there are different sections in library - picture books,
   easy readers, and informational
   Mom guides children to materials needed; will check out lots of books -
   take them home and decide which will be most helpful

6. What do your children do if they can't find enough resources?

Not really age-appropriate question - most projects they do we are
able to find an abundance of information

7. What do your children do if they find too many resources?

Doesn't usually happen - probably pick and choose which books have the
best information
Look for books that are easy to read, lots of pictures, understandable
for younger child, etc.

8. What kinds of resources besides reference materials and non-fiction books are used by your children?

Ranger Rick magazine

How do your children find these other resources?

Own subscription; back issues at public library - librarian will help
find information needed

9. How does your curriculum teach your children to evaluate the resources they find?

Curriculum doesn't

If not taught within the curriculum, do you teach them? If so, how?

See question #7 - guided by mom

10. How do your children take notes?

Have not learned note taking skills - too young; not in curriculum

11. How do your children communicate what they've learned?

Write stories - make booklet
Draw pictures, models, posters

12. How does your curriculum provide for your student to do self-evaluation of projects?

No self-evaluation, except curriculum has answer key so child can
check for correct answers

If it doesn't, do you? How?

Mom and child discuss/evaluate together

13. How do you know that your children are improving in the skills of information use?

    More comfortable finding information in the library - do more with
    less guidance from an adult - confidence in own abilities

14. Are there any research skills that your children may be lacking?

    Yes, just starting library skills instruction - needs LOTS of instruction and
    practice in finding information, taking notes, and putting it all together into a
    project

Interview Questions - Family 14

Background Information

1. How many home-schooled children are in your family and what are their ages?
   Two children; ages 9, 15

2. How long have you been teaching your children at home?
   Just completed first year

3. Why have you made the decision to home school?
   Very unhappy with social atmosphere at public high school - looking for an
   alternative way of educating rather than open-enrollment to another district
   Acquainted with one of the home schooling parents - influenced me to
   commit myself to home schooling two sons
   Been a lot of work, but very rewarding; plan on continuing
   Decided to teach both children, event though elementary was not a
   problem

4. Describe your homeschool experience (daily routine, successes, problems, etc.)
   Do most of our work in the morning; son works part time in the
   afternoon

5. If your children are registered with the school district wherein you reside, what school opportunities and resources do you take advantage of?
   Textbooks from school

6. What type of curriculum do you use when teaching your children, predominently parent-planned or purchased? If purchased, which publishing company?
   Some purchased - Bob Jones and Saxon math, Abeka; textbooks from public school
   Trying to supplement by doing timelines - chronological aspect of history -
   interrelate everything
   (Lots of help & support from other home schooling parents)

Information Problem Solving Process

1. Tell about the kinds of supplemental projects your children are assigned.
   Make timelines - design topics that allow students more in-depth
   study
   Started with creation - how Biblical history relates to world history
   Math/science/literature - all interrelated
   Archeology, explorers, U.S. history

   Are these projects usually suggested by the curriculum, or assigned by you?
   Both

2. How do your children choose a topic they want to explore for supplemental research?
   Give them a variety of choices - having to do with one aspect of what
   we're studying - whatever "strikes their fancy"
   Older - more complex projects than younger

3. How do you make use of the libraries available to you?
   Use library for research/information and literature
   Use all aspects - fiction, non-fiction, encyclopedia, videos, computer
   encyclopedia, Infotrac

   Do you usually frequent public or school libraries?
   Public library in Grinnell - our town library outdated; not a lot of resources

4. How do your children identify the resources needed for individual projects?
   Card catalog; if no books, use Infotrac (magazines) or internet at
   home

5. Once the resources are identified, how do your children find the necessary materials?
   Know how library is organized; understand decimal numbers (younger
   child still learning)
   Older - able to search computer encyclopedia and internet; teaching
   younger brother

6. What do your children do if they can't find enough resources?
   Probably change topic, or maybe revise it a little

7. What do your children do if they find too many resources?
Look through them all to find best; which has most important
information, recent, can read it

8. What kinds of resources besides reference materials and non-fiction books are used by your children?
Computer encyclopedia, internet, Infotrac, videotapes, T.V.

How do your children find these other resources?
Home and public library - parent and public librarian help

9. How does your curriculum teach your children to evaluate the resources they find?
Doesn't

If not taught within the curriculum, do you teach them? If so, how?
Skim to find which has best information - copyright date, index, pictures, reading level

10. How do your children take notes?
Notebook paper - write down information

11. How do your children communicate what they've learned?
Timeline, written reports, draw pictures (younger), share with homeschool group

12. How does your curriculum provide for your student to do self-evaluation of projects?
Doesn't really, except for having an answer key

If it doesn't, do you? How?
Children don't evaluate themselves - parent discusses with them how they did on projects

13. How do you know that your children are improving in the skills of information use?
When they can find information on their own, without much help
Excellent projects
Confidence - older has better skills just because more experienced

14. Are there any research skills that your children may be lacking?
    Older seems to have good skills - very self-sufficient
    Younger - still learning; needs lots of guidance and practice in
    everything