In this pilot study, a group of 41 "gifted and talented" juniors in high school English and social sciences classes used the menu-driven Wilsearch software to gather leads to information sources in order to complete their first major term paper. The study demonstrates that: (1) students had little difficulty in using the menu-driven software to combine search terms or to request specific subject areas for books through the Dewey Decimal option; (2) students were selective in the titles requested for printout from Wilsonline and narrowed their choices even more when requesting materials through interlibrary loan; (3) students received over 80% of the journal articles requested but cited only 24% of those received; (4) students received 39% of the book titles requested and cited 72% of the books received; and (5) attitudes toward the use of online searching were positive. Suggestions for expanding the time period for the assignment and raising the information use expectations are outlined. Four appendices include the student assignment sheet, handouts for introducing Wilsearch, the student worksheet for topic identification and subject heading verification, and the student questionnaire. (Author/KM)
USING WILSEARCH WITH HIGH SCHOOL STUDENTS: A PILOT STUDY

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CONTENTS

Questions for the Study ........................................ 1
The Student Assignment ...................................... 2
Review of Wilsearch ........................................... 3
Carmel High Library Media Center .......................... 4
Evaluation Methods ............................................ 5

Statistical Information Relevant to Questions:
1. Can the student demonstrate the ability to formulate the information necessary to search the Wilsonline databases through the use of the Wilsearch software? .......... 6
   Total student use ........................................ 6
   Planning Search; Testing Terms ....................... 6
   Typical Surge of Demand ............................... 7
   Students Reconstruct Search ........................... 8
   Advantages and Disadvantages of Wilsearch .......... 9
   Conducting More than One Search .................... 11
   Future Student Online Use ............................. 12

2. Will the student select potential materials identified through the use of Wilsearch or Wilsonline? .................................................. 13
   Selection of Topics .................................... 13
   Selection of Wilsearch Databases .................. 14
   Wilsearch Citations Printed .......................... 15
   Average Number of Citations Printed ............... 16
   Citation Selection Criteria ........................... 17
   Usefulness of Library Collections and Wilsearch .... 18

3. Will the student use materials identified through the use of Wilsearch or Wilsonline? .................................................. 19
   Assignment Based on In-house Collection ........... 19
   Wider Variety of Journals through Wilsearch ....... 20
   Most Frequently Used Periodicals .................. 21
   Most Frequently Footnoted Periodicals ............ 22
   Social Issues Resources Series & Newspaper Use ........ 23
   Student Bibliography Content ....................... 24
   Average Number of Sources in Bibliography ........ 25
   Frequency of Footnotes ................................ 26
   Average Number of Footnotes Per Paper ............ 27
   Average Number of Footnotes Per Format .......... 27
   Key Sources ............................................ 28
   Interlibrary Loan Cost ................................ 30
   Interlibrary Loan: Book Use Rate .................. 31
   Interlibrary Loan: Periodical Use Rate ............ 32
   Periodical Use by Wilsearch Database ............. 33
   Total Use Rate ........................................ 34
   Use Rate Per Item ..................................... 35
   Lack of Journal Use ................................... 36
Wilsearch Provides Much Information for Ten Topics
Characteristics of Successful Student Searchers
Successful Searchers Compared to Entire Class
Wilsearch Provided No Leads for Ten Students
Characteristics of Unsuccessful Student Searchers
Lack of Special Encyclopedia Sets
Summary of Findings for Questions 1-3
Conclusions and Recommendations relevant to Questions 4-6:
4. Will the instructors for the course and the school librarian consider alternative approaches to the structure of the term paper assignment based on their experiences with Wilsearch, Wilsonline, and interlibrary loan?
5. What are the recommendations for restructuring the term paper assignment in order to establish more efficient use of Wilsearch, Wilsonline and interlibrary loan?
6. Which of the statistical measurement procedures tested within the pilot should be used for the evaluation of the use of Wilsearch, Wilsonline, and interlibrary loan by a larger student audience?
Appendix A: Student Assignment Sheet
Appendix B: Handouts for Introducing Wilsearch
Appendix C: Student Worksheet for Topic Identification & Subject Heading Verification
Appendix D: Student Questionnaire
QUESTIONS FOR THE PILOT STUDY

Juniors enrolled in the "Most Able"* English and Social Studies class at Carmel High School (Carmel, Indiana) were subjects in pilot study to test the Wilsearch software and Wilsonline. Each of these students was assigned what was basically their first term paper which involved the use of taking notes and citing sources. In addition to the resources available through their local high school library, the students were encouraged to use Wilsearch to locate additional books and journal articles not contained in their local collection.

The general questions established for the pilot study:

1. Can the student demonstrate the ability to formulate the information necessary to search the Wilsonline databases through the use of the Wilsearch software?

2. Will the student select potential materials identified through the use of Wilsearch or Wilsonline?

3. Will the student use materials identified through the use of Wilsearch or Wilsonline?

4. Will the instructors for the course and the school librarian consider alternative approaches to the structure of the term paper assignment based on their experiences with Wilsearch, Wilsonline and interlibrary loan?

5. What are the recommendations for restructuring the term paper assignment in order to establish a more efficient use of Wilsearch, Wilsonline and interlibrary loan?

6. Which of the statistical measurement procedures tested within the pilot should be used for the evaluation of the use of Wilsearch, Wilsonline and interlibrary loan by a larger student audience?

Although not intended to be used as a pure control group, the 41 students introduced to the use of Wilsearch were compared in many respects to the 40 students who completed the same assignment one year previous. The earlier group did not have access to Wilsearch, Wilsonline (or any other online database), interlibrary loan, nor most of the print Wilson indexes. The 40 students from the previous year did have access to the READERS' GUIDE TO PERIODICAL LITERATURE and EDUCATION INDEX, as well as several newspaper indexes which were also available to the 41 students involved in this pilot. Comparison of the products from the two groups allowed us to gain some idea of the changes in the papers when the access to a broader base of information was available to students using Wilsearch.

*"Most Able" is the term used in this school to mean "advanced placement" or "gifted and talented."
THE STUDENT ASSIGNMENT

The basic assignment for both groups of students included the following elements (see Appendix A):

1. The student will select a topic of interest to him or her which involves either a contemporary issue or a topic of historical nature.

Examples of contemporary topics selected included: "Problems in Public Education," "Child Abuse in Day Care Centers," "Pornography and Censorship," and "Teenage Suicide." Many of the contemporary topics also included worldwide political issues of "Terrorism," "South Africa," or "U. S. Aid to the Contras." Others were concerned with contemporary health related issues of "Autism," "Depression," "Dyslexia," and "Artificial Heart Experiments." Historical topics ranged from "The Great Pyramids" to "Military Service of Blacks in World War II."

2. The student will use (cite and properly footnote) a minimum of seven sources.

Each student was required to provide evidence that each of the following resources was used in gathering information: Newsbank, The Readers' Guide to Periodical Literature, SIRS, and the N. Y. Times Index. In addition, each student was required to use at least one of these additional resources: Editorial Research Report or Facts on File.

3. Evidence that a minimum of sixty notes were taken from the sources located had to be presented to the teacher.

4. Encyclopedias were specifically listed as not being a source which would be accepted as a part of the bibliography.

5. The total length of the paper, typed and not including title page or the bibliography, could range from seven to ten pages. (The average length of the papers for both groups was ten pages, or about 2300 words).

Both groups were given the same time-frame for completion of the paper. The assignment was made at the beginning of the second (or Spring) semester of a full year course. The span of time from the day the assignment was introduced until the student completed the paper was six weeks.

The student was to select a topic and compile evidence of 12 sources of initial information within the first week. Additional reading and notetaking followed for two weeks with a final outline for the paper due four weeks after the assignment was made. Both groups were enrolled in a double-hour block under the supervision of two teachers, one the head of the English Department and the other the Head of the Social Studies Department.
REVIEW OF WILSEARCH

During the first week of the assignment students were given a brief review of the basic indexes which they were required to use. All of the students in both groups had demonstrated in previous classwork the ability to use the basic indexes to the book collection, the general periodicals and the newspapers. One class period was given to the introduction of online databases and the basic use of the Wilsearch software. This presentation was given only to the 41 students who were members of the 1986 group. The previous group of 40 students (1985) did not have access to the Wilsearch or Wilsonline systems.

Instruction to the 1986 group concerning the Wilsearch software included a sample search through the use of a video-taped example displayed for the entire class. In addition, the advantages for using an online search were outlined for the students including the ability to search a much larger group of citations than provided by the print indexes housed by their high school library, and to possibly conduct the search on a more efficient basis (see Appendix B).

The students were informed they were part of an experiment to test the use of the Wilsearch software, and all were encouraged to use the software, but were not required to do so.

As a preliminary step, each student who desired to use the Wilsearch software was asked to complete a basic search of the print indexes from the various H. W. Wilson indexes available, and to record the subject headings which seemed to them to be useful in locating citations. The actual practice in the use of the Wilsearch software was left for individual instruction as each student who desired to use the system conducted his or her first search (see Appendix C).
The Carmel High School Media Center houses an extensive collection of materials for students. Its collection of general books totals 25,000 titles, which is average for a high school of its size (2,000 students). However, the periodical collection is exceptional with back holdings running up to 15 years for many of the titles indexed by the Readers' Guide and 95% of the titles indexed by the Readers' Guide over the past five years available for immediate student access. In addition, the library has collected microfilm for the New York Times as well as other major newspapers available through NewsBank. Local newspapers are clipped on a regular basis by volunteers and filed under current issues topics in the Infofile (vertical file).

Those students who had transportation to area libraries used the large metropolitan library for Indianapolis as well as the extensive collection available through the local branch university library collection (200,000 volumes) available at Indiana University - Purdue University at Indianapolis. Both the public library and university library were within 30 minutes from the campus of the high school. The Carmel Community Public Library is located immediately across the street from the high school, but contains a periodical collection much less extensive than the high school's.

The high school media center is staffed with three professional librarians, each providing fulltime service to the instruction and informational needs of the students. The Carmel High School Media Center is often noted for its exceptional service and collection within the circle of Indiana school libraries. Thus, the student groups, teaching staff and library collection used in this pilot are exceptional for the state of Indiana and well above the average for the nation.

At the time of the project, however, the Carmel High School Media Center was not a member of a network of libraries which would provide interlibrary loan services. Therefore, in order to meet the information demands that would be generated by the use of Wilsearch and the Wilsonline database, access to the book and journal collection of Indiana University at Bloomington (one of the 15 largest research collections in the country) was provided. Requests from the students were taken by graduate assistants of the Indiana University School of Library and Information Science and most requests were filled within five days.
EVALUATION METHODS

Three methods were used to evaluate the value of the Wilsearch software and the Wilsonline database for this high school term paper assignment. First, general observations were recorded by the researcher and librarian concerning student reactions to the use of the Wilsearch software. More tangible data were gathered through an analysis of the sources gathered by both the 1985 and the 1986 groups. Specific comparisons were made. The 41 students from the 1986 group completed a questionnaire concerning their knowledge and impressions of the Wilsearch software and Wilsonline database (see Appendix D). The questionnaire was completed two weeks following the final draft of the student papers.
QUESTION 1

CAN THE STUDENT DEMONSTRATE THE ABILITY TO FORMULATE THE INFORMATION NECESSARY TO SEARCH THE WILSONLINE DATABASES THROUGH THE USE OF THE WILSEARCH SOFTWARE?

1. Total Student Use

36 of the 41 (88%) students used the Wilsearch software at least once. Of the 36 students, 27 (75%) utilized the Wilsearch software more than once to search for information.

2. Planning Search; Testing Terms

Students were taken through the steps of "thinking through" the terms to be used for the search on paper before running the Wilsearch program. This process involved the student's own testing of the subject headings by attempting to locate citations through the Wilson print indexes. The student could examine any of the following indexes and was asked to complete a form which reflected a tally of the total citations located for each subject heading (see Appendix C):

- THE READERS' GUIDE TO PERIODICAL LITERATURE
- APPLIED SCIENCE AND TECHNOLOGY
- BIOLOGICAL AND AGRICULTURE INDEX
- EDUCATION INDEX
- GENERAL SCIENCE INDEX
- HUMANITIES INDEX
- ART INDEX
- INDEX TO LEGAL PERIODICALS
- SOCIAL SCIENCES INDEX
- BUSINESS PERIODICALS INDEX
- BIOGRAPHY INDEX
3. Typical Surge of Demand

One microcomputer with one copy of the Wilsearch software was available for the class of 41 students to use. As is so often the case in school research paper assignments, a "bottle-neck" formed by the third day with students ready to search, but not being able to get to the microcomputer. This was complicated by two factors: first the Wilsonline system "went down" on two of the first three days of the time allotted for using Wilsearch, and second, the average length of time the student spent with the system was around 20 minutes, about twice what was expected. Often the additional time was invested in the student aborting a search which did not bring results, and either changing the terms used to conduct the search or selecting a different set of indexes to search.

The problem was managed in several ways. First, a sign-up sheet was started so students could go on to other areas of their paper (searching newspaper indexes, reading, notetaking) and then called when their turn came. Second, students seemed to learn the system quickly when allowed to observe a classmate in the process of searching prior to conducting their own search. Thus, students were encouraged to observe another student in the search process prior to their own first attempt.

Although a second microcomputer was available for direct searching through Wilsonline, the trade off for a second microcomputer with the Wilsearch software was not pursued as alternatives developed for managing the surge of student demand. A third factor which helped to relieve the immediate demand was student use of the system at times outside of the regular class period. Within the first week, a dozen students came back after school or from some other class in order to complete their search.

The surge of student demand for an index is common during the high school library assignment. Often 30 to 90 students will be given the same basic assignment, and management of time along with sharing of resources becomes very important during the very first steps of the information search.
4. Students Reconstruct Search Two Weeks Later

The students were given an article concerning the Tylenol killings in the February 24, 1986 issue of *Newsweek*. As a part of their questionnaire, each student was to determine the key terms and the Wilson indexes they would search to find additional information (see pages 14-17, Appendix D).

Of the 36 students who utilized Wilsearch at least once, all but one (97%) could identify two potential Wilson indexes which would lead to additional information concerning the current and past Tylenol killings. Two of the five who did not use Wilsearch could identify potential Wilson indexes.

Of the 36 students who utilized Wilsearch at least once, 25 of the 36 or 69% placed potential terms in the given grid which would have generated a successful search to additional information. One of the five students who did not use the Wilsearch software identified useful terms and placed them in the proper location on the given grid.
5. Advantages & Disadvantages of Online Searching

Students were asked to list their impressions of the advantages and disadvantages of the use of Wilsearch. Although reasons for obtaining information through online searching were mentioned in a one hour presentation prior to the students beginning their project, no additional mention of the potential for online searching was made to the students in class. Most of their impressions resulted from their own experience with Wilsearch and their own observations of what other students were able to do with Wilsearch (see page 8, Appendix D).

When asked to list the ADVANTAGES of using Wilsearch:

a. Over half of the students (61%) indicated Wilsearch was a "fast and efficient way to locate materials." Similar quotations included, "allows you to access many indexes at once," and "sure beats running around ten different libraries."

b. About one third of the students (30%) indicated Wilsearch "opened a new direction for new ideas on my topic," or "provided more indepth information on my topic."

c. Ten percent of the students indicated Wilsearch was "easy to learn," or "self-explanatory."

d. Other advantages given once each were, "allows you to concentrate on specific areas," "lists very current periodicals," "will print-out a bibliography for you," "helps to acquaint the student with online searching."
When asked to list the DISADVANTAGES of using Wilsearch:

a. Seven students (17%) felt Wilsearch was "too slow" or "too tedious."

b. Five students (12%) felt there were "too many limitations to the number of items which could be called up" by the system.

c. Four students (10%) felt the wait to use the terminal was too long and there was a need for more than one terminal.

d. Each of the following disadvantages was noted by three (7%) students: "the system went down and was not reliable," "was difficult to determine the correct terms to use," "summaries (citations) were unclear," "too much information given to me to sort through."

e. Other disadvantages mentioned once each: "covered only a few years of information," "too expensive," "some of the information cited was not located."

After completing several searches through the use of Wilsearch eight students continued their search for materials with the assistance of the head librarian by going directly online with Wilsonline. Three students noted that Wilsonline gave them "several items which Wilsearch missed," but most felt that Wilsonline was "too difficult to use by myself, too many commands." The remaining five students felt that Wilsonline "simply repeated Wilsearch" as far as giving them leads to more materials.
6. Conducting More than One Search

Students who did not use Wilsearch were asked why. Those who did were asked to describe further why they only did one search or why they returned for more searching (see pages 9-11, Appendix D).

a. Of the five students who did not use Wilsearch, two stated "they felt they had enough information to complete the assignment" without searching online. Two felt there would simply not be anything on their subject and did not want to wait to use the computer. One also indicated reluctance (or fear) to use any kind of computer.

b. One fifth (22%) of the students stated they did only one search because they "found enough information after one search." Three students indicated they did one search "just to see what it was all about." Ten percent of the students stated they did only one search because "there was not enough time to do additional searches."

c. One fifth (22%) of the students stated they did more than one search because "each search led to new angles or new ideas," "helped me redefine my thesis," "could vary the terms each time I searched and led to more information in other areas," or "one search was for books, the others for articles."

d. Ten percent of the students stated they did additional searches because the first search did not lead to any information, or the first set of terms used did not seem to lead to any information.

e. Almost half of the students (44%) indicated they stopped using Wilsearch at some point because they felt they had enough information for the assignment. One fifth of the students indicated they would have continued to search if they had had more time in order to wait and receive the materials through interlibrary loan.
7. Future Student Online Use

Each of the 41 students was asked to give their opinion concerning their future ability and interest in using Wilsearch. The students were also asked their opinion concerning future use and costs of online searching and obtaining materials through interlibrary loan (see pages 12-13, Appendix D).

a. Two thirds (66%) of the students felt they could use Wilsearch without help in order to find information in the future. Many of these students indicated this was possible because of the easy instructions. One student commented that she not only knew how to use Wilsearch now, but because of the opportunity to use the variety of Wilson indexes, she became aware that she could use BUSINESS PERIODICALS index very easily; she wouldn't have tried to use the index at the public library without her experience with Wilsearch.

b. A majority of the students (63%) told either a friend or their parents about the use of Wilsearch at school. Several of these students said they wanted their parents to know the school was giving them the opportunity to use computers to find information, and they were a part of an experiment.

c. Over two thirds (68%) added they would probably use an online search to locate information during the next two years. Most of the students expected to have online searching available to them in college. Several students commented to the head librarian, their teacher or to the researcher during the course of the project that they hoped Wilsearch would continue to be available for their use during their senior year for their research project.

d. Most of the students (88%) recommended the use of Wilsearch for their friends. One student told the head librarian during the project that she hoped Wilsearch would still be available for her two younger sisters when they are juniors next year and are assigned the same paper.

e. A majority of the students (61%) agreed they would pay up to $2.00 each time they used Wilsearch.

f. Only one fifth (20%) agreed they would pay up to $2.00 to receive materials through interlibrary loan. Many simply felt that because there is no charge to get materials from their local library, there should be no charge to get materials from other libraries. Others felt the charge should depend on the materials. Most frequently, the students wanted to see the material before they would pay.
QUESTION 2

WILL THE STUDENT SELECT POTENTIAL MATERIALS IDENTIFIED THROUGH THE USE OF WILSEARCH OR WILSONLINE?

1. Selection of Topics

The 41 students involved in the project with the opportunity to use Wilsearch were requested to select a topic of interest to them for their assigned research paper. Students made their selection prior to any specific knowledge of the possible uses of the Wilsearch software and the Wilsonline database. Once the topic was selected, none of the students changed the general topic area as the research progressed, although some refined their direction within the topic area. Eighty percent of the students indicated they selected their topic because, "I did not know much about my topic and thought this assignment would be a chance to read about something new to me." Only one of the students indicated that he or she "had written another paper or given a talk on the same topic selected prior to the class assignment."

Both teachers reinforced the selection of topics which would be of interest since each student would be investing a great deal of time and effort in obtaining materials. All topics were "screened" through a two-level process to be sure some basic materials would be available. First, the teachers and the head librarian reviewed the list of selected topics to determine if any of the topics might not be supported with at least some background materials. Second, within the first week of the assignment, each student was required to locate at least a dozen potential citations on their topic. None of the 41 students changed their original topic after the first week of the assignment.

Following their initial search of the high school library collection, the students were given the opportunity to determine subject headings in relevant Wilson print indexes and to conduct at least one search through the use of the Wilsearch software.

2. Wilsearch was Optional to Use

A total of 132 searches were conducted by the 36 students who decided to use Wilsearch to locate additional information. 87% of the class elected to try Wilsearch.

Of the 132 searches, 111 (84%) resulted in at least one citation being selected by the student for print-out. Most of the 21 searches which did not result in a print-out of citations involved either location of no possible citations following the combining of subject terms or, in eight cases, no usable citations were identified.
3. Selection of Wilsearch Databases

Of the 111 searches in which at least one potential citation was printed, 77 (69%) involved the option of the student selecting their own indexes from the index menu provided in Wilsearch. Students elected to combine such indexes as SOCIAL SCIENCE with HUMANITIES, or LEGAL PERIODICALS with BUSINESS PERIODICALS, or SOCIAL SCIENCES with LEGAL PERIODICALS. The options selected by the students for searching a single database usually involved BOOKS, READERS' GUIDE, or SOCIAL SCIENCES.

Of these 111 searches conducted by the students, SOCIAL SCIENCES was the most requested database as it was selected either alone or in combination with another database 34 times (31%). The second most requested database was READERS' GUIDE.

Table 1
WILSON INDEXES GENERATING AT LEAST ONE CITATION PRINT-OUT

<table>
<thead>
<tr>
<th>WILSEARCH INDEX/DATABASE</th>
<th>TIMES REQUESTED</th>
<th>% OF TOTAL REQUESTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Sciences</td>
<td>34</td>
<td>31%</td>
</tr>
<tr>
<td>Readers' Guide</td>
<td>23</td>
<td>21%</td>
</tr>
<tr>
<td>Books</td>
<td>14</td>
<td>13%</td>
</tr>
<tr>
<td>Education</td>
<td>11</td>
<td>9%</td>
</tr>
<tr>
<td>Humanities</td>
<td>11</td>
<td>9%</td>
</tr>
<tr>
<td>General Science</td>
<td>6</td>
<td>5%</td>
</tr>
<tr>
<td>Legal Periodicals</td>
<td>6</td>
<td>5%</td>
</tr>
<tr>
<td>Business Periodicals</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>Applied Science</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>111</strong></td>
<td></td>
</tr>
</tbody>
</table>
4. WILSEARCH Citations Printed

A total of 661 citations were selected by the students to be printed for further consideration. Of this total, SOCIAL SCIENCES represented the most citations with 167 (25%), and READERS' GUIDE second with 120 printed citations (18%).

<table>
<thead>
<tr>
<th>WILSEARCH INDEX/DATABASE</th>
<th>CITATIONS PRINTED</th>
<th>% OF TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Sciences</td>
<td>167</td>
<td>25%</td>
</tr>
<tr>
<td>Readers' Guide</td>
<td>120</td>
<td>18%</td>
</tr>
<tr>
<td>Books</td>
<td>101</td>
<td>15%</td>
</tr>
<tr>
<td>Education</td>
<td>77</td>
<td>12%</td>
</tr>
<tr>
<td>Business Periodicals</td>
<td>76</td>
<td>11%</td>
</tr>
<tr>
<td>Legal Periodicals</td>
<td>42</td>
<td>6%</td>
</tr>
<tr>
<td>Humanities</td>
<td>35</td>
<td>5%</td>
</tr>
<tr>
<td>General Science</td>
<td>28</td>
<td>4%</td>
</tr>
<tr>
<td>Applied Science</td>
<td>14</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>661</td>
<td></td>
</tr>
</tbody>
</table>
5. Average Number of Citations Printed

The SOCIAL SCIENCES index did not yield the highest average number of citations per print-out. Those indexes which seemed to generate the most citations per search (citations were selected by the student as being valuable enough to be printed for further consideration) were BUSINESS PERIODICALS, BOOKS, EDUCATION and LEGAL PERIODICALS. APPLIED SCIENCE produced 15 citations printed by the student but only one search was made of this index. Students tended not to print-out as many of the citations, on the average, from HUMANITIES index as they did from the other indexes.

Table 3
AVERAGE NUMBER OF PRINTED CITATIONS SELECTED PER SEARCH OF WILSON INDEXES

<table>
<thead>
<tr>
<th>WILSEARCH INDEX/DATABASE</th>
<th>AVERAGE NUMBER OF CITATIONS PRINTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Periodicals</td>
<td>15</td>
</tr>
<tr>
<td>Applied Science</td>
<td>14</td>
</tr>
<tr>
<td>Books</td>
<td>7</td>
</tr>
<tr>
<td>Education</td>
<td>7</td>
</tr>
<tr>
<td>Legal Periodicals</td>
<td>7</td>
</tr>
<tr>
<td>General Science</td>
<td>5</td>
</tr>
<tr>
<td>Readers' Guide</td>
<td>5</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>5</td>
</tr>
<tr>
<td>Humanities</td>
<td>3</td>
</tr>
</tbody>
</table>

The statistics which represent the total number of items from each database requested by the student and total number of items used in the students' papers are reported under general question #3.
6. Citation Selection Criteria

Criteria used by the students to select items for the print-out were not systematically identified. However, as the librarian, teachers and researcher worked with the individual students, often the decision to print-out an article was based on either "title of the article," or "the related subject headings listed after the citation." Students seldom considered the total number of pages in the article, date or author. Journal titles seldom seemed to determine the choice of items for the print-out. The criteria for determining those items to request through interlibrary loan were identified through the student questionnaire. The criterion most listed by the students to determine those items to request through interlibrary loan included (see page 11, Appendix D):

a. "title of the article or the book"
b. "associated subjects listed by Wilssearch"
c. "date of the publication"
d. "title of the periodical"

In a few cases, students were observed to not select an article from a journal which they felt "sounded too difficult" based on the title of the journal.
7. Usefulness of Library Collections and Wilsearch

Students were asked to give their impressions of the usefulness of the library collections available to them for the completion of the assignment. The students' responses were gathered on a questionnaire two weeks following the completion of their papers (see page 7-7a, Appendix D).

All but one of the students (98%) indicated that the Carmel High School Library had at least some useful materials; 59% indicated the Carmel High School Library had a great deal of useful materials. Of course, the assignment was built around the materials available at the local high school library, and the students spent most of their search time in the school's library.

The Wilsearch system and materials received from interlibrary loan were ranked second only to the high school collection as providing useful materials. 83% of the students who used Wilsearch indicated at least some useful materials were located, and 32% indicated a great deal of useful materials were located through Wilsearch.

The Indianapolis-Marion County Public Library is located within a 30 minute drive from the high school. This large metropolitan library was used by 32 of the 41 students in the class. Of the 32 students, 76% indicated at least some useful materials were located at the IMCPL, and 56% indicated a great deal of useful materials were located.

Table 4
STUDENT IMPRESSIONS OF THE USEFULNESS OF LOCAL LIBRARY COLLECTIONS AND WILSEARCH

<table>
<thead>
<tr>
<th>LIBRARY OR COLLECTION</th>
<th>NUMBER OF STUDENT USERS</th>
<th>% INDICATING SOME USEFUL MATERIALS</th>
<th>% INDICATING A GREAT DEAL OF USEFUL MATERIALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carmel High</td>
<td>41</td>
<td>39%</td>
<td>53% (total: 98%)</td>
</tr>
<tr>
<td>Wilsearch</td>
<td>37</td>
<td>51%</td>
<td>32% (total: 83%)</td>
</tr>
<tr>
<td>Indianapolis Public</td>
<td>32</td>
<td>16%</td>
<td>56% (total: 72%)</td>
</tr>
<tr>
<td>Carmel Public</td>
<td>33</td>
<td>48%</td>
<td>12% (total: 60%)</td>
</tr>
<tr>
<td>Home library</td>
<td>32</td>
<td>22%</td>
<td>16% (total: 38%)</td>
</tr>
<tr>
<td>IUPUI</td>
<td>25</td>
<td>8%</td>
<td>8% (total: 16%)</td>
</tr>
<tr>
<td>State Library of Indiana</td>
<td>24</td>
<td>4%</td>
<td>8% (total: 12%)</td>
</tr>
</tbody>
</table>
QUESTION 3

WILL THE STUDENT USE MATERIALS IDENTIFIED THROUGH THE USE OF WILSEARCH OR WILSONLINE?

1. Assignment Based on In-house Collection

The research paper assignment for the 41 high school juniors involved in the opportunity to use Wilsearch was designed during the previous school year. Requirements for the assignment were built upon the assumption that the students would acquire information by going to a variety of information formats, but would generally locate most of the needed resources within the high school collection.

Each student was required to use indexes to books, periodicals, newspapers and several information notebooks or periodical/newspaper clipping services in order to identify the evidence needed for the paper. This assignment was not restructured with the availability of Wilsearch or an interlibrary loan service. Time to allow the understanding of the online search and time to allow for locating materials through interlibrary loan are certainly important factors, and will be discussed later. However, the exact structure was retained for the 1986 group so comparisons could be made with the previous (1985) group which did not have access to Wilsearch or any other online information system.

The completed papers from the two groups were of the same length, on average. The average length of a paper from the 40 students in 1985 was 9.2 pages, or 2280 words. The average length of a paper from the 41 students in 1986 was 9.5 pages, or 2300 words.
2. Wider Variety of Journals through Wilsearch

The students who had access to Wilsearch did use a greater number of different journal or periodical titles in the completion of their papers. 77 different periodicals were cited by the 1986 group, while 56 different titles were cited by the 1985 group.

Twenty-nine journals or periodicals were used by the 1986 group which were not used by the 1985 group. Most of the journals cited by the 1986 group and not by the 1985 group were journals from law, medicine, education, chemistry, political science, and business.

Thirteen journals or periodicals were used by the 1985 group which were not used by the 1986 group. While many of these periodicals were popular publications, such as Esquire, Sunset, Money, Seventeen, and Fortune, a few scholarly journals in the social sciences did appear.

<table>
<thead>
<tr>
<th>1986 JOURNALS AND PERIODICALS (Wilsearch and ILL available)</th>
<th>1985 JOURNALS AND PERIODICALS (Wilsearch and ILL not available)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. American Journal of Nursing</td>
<td>2. AV Magazine</td>
</tr>
<tr>
<td>5. Business and Society Review</td>
<td>5. Foreign Affairs</td>
</tr>
<tr>
<td>6. Chemical and Engineering News</td>
<td>6. Modern Indian Psychology</td>
</tr>
<tr>
<td>8. The Economist</td>
<td>8. Mother Earth News</td>
</tr>
<tr>
<td>11. Educational Horizons</td>
<td>11. Seventeen</td>
</tr>
<tr>
<td>15. Harvard Women's Law Journal</td>
<td></td>
</tr>
<tr>
<td>16. The Humanist</td>
<td></td>
</tr>
<tr>
<td>17. India Today</td>
<td></td>
</tr>
<tr>
<td>18. Journal of the American Medical Association</td>
<td></td>
</tr>
<tr>
<td>19. Journal of Child Psychology</td>
<td></td>
</tr>
<tr>
<td>20. Journal of Learning Disabilities</td>
<td></td>
</tr>
<tr>
<td>21. Journal of Medicine and Philosophy</td>
<td></td>
</tr>
<tr>
<td>22. Journal of Negro History</td>
<td></td>
</tr>
<tr>
<td>23. Journal of Physical Education</td>
<td></td>
</tr>
<tr>
<td>24. Journal of Studies on Alcohol</td>
<td></td>
</tr>
<tr>
<td>25. Nineteenth Century</td>
<td></td>
</tr>
<tr>
<td>26. Phi Delta Kappan</td>
<td></td>
</tr>
<tr>
<td>27. Religious Studies</td>
<td></td>
</tr>
<tr>
<td>28. Social Theory and Practice</td>
<td></td>
</tr>
<tr>
<td>29. World Marxist Review</td>
<td></td>
</tr>
</tbody>
</table>
3. Most Frequently Used Periodicals

The periodicals used most frequently by the two groups remained very similar from 1985 to 1986. In both groups there was a heavy use of the popular news magazines and popular science periodicals.

Table 6
PERIODICALS LISTED MOST FREQUENTLY IN STUDENT BIBLIOGRAPHIES

<table>
<thead>
<tr>
<th>TITLE</th>
<th>1985 FREQUENCY IN BIBLIOGRAPHY</th>
<th>1985 TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>U. S. News and World Report</td>
<td>14</td>
<td>Newsweek</td>
</tr>
<tr>
<td>Time</td>
<td>10</td>
<td>Time</td>
</tr>
<tr>
<td>Newsweek</td>
<td>8</td>
<td>Psychology Today</td>
</tr>
<tr>
<td>Science News</td>
<td>7</td>
<td>Science Digest</td>
</tr>
<tr>
<td>Maclean</td>
<td>5</td>
<td>U. S. News and World Report</td>
</tr>
<tr>
<td>New Republic</td>
<td>5</td>
<td>New York Times Magazine</td>
</tr>
<tr>
<td>Psychology Today</td>
<td>5</td>
<td>Science News</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TITLE</th>
<th>1986 FREQUENCY IN BIBLIOGRAPHY</th>
<th>1986 TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>U. S. News and World Report</td>
<td>14</td>
<td>Newsweek</td>
</tr>
<tr>
<td>Time</td>
<td>10</td>
<td>Time</td>
</tr>
<tr>
<td>Newsweek</td>
<td>8</td>
<td>Psychology Today</td>
</tr>
<tr>
<td>Science News</td>
<td>7</td>
<td>Science Digest</td>
</tr>
<tr>
<td>Maclean</td>
<td>5</td>
<td>U. S. News and World Report</td>
</tr>
<tr>
<td>New Republic</td>
<td>5</td>
<td>New York Times Magazine</td>
</tr>
<tr>
<td>Psychology Today</td>
<td>5</td>
<td>Science News</td>
</tr>
</tbody>
</table>
4. Most Frequently Footnoted Periodicals

As one might expect, these same popular news and science periodicals also were more frequently cited as sources of factual information than were the journals available through Wilesearch and the additional Wilson indexes. Most of the frequently listed and cited periodicals are indexed on a regular and consistent basis by Wilson's READERS' GUIDE, Less than 10% of the citations given for the most frequently cited periodicals came from articles located by the students through the use of Wilesearch. Students used the printed READERS' GUIDE indexes because they were readily available without waiting to use the computer terminal. Most students reserved the use of Wilesearch to locate potential materials in other indexes not available in print form.

<table>
<thead>
<tr>
<th>JOURNALS AND PERIODICALS MOST FREQUENTLY CITED IN STUDENT PAPERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>U. S. News and World Report</td>
</tr>
<tr>
<td>Time</td>
</tr>
<tr>
<td>Newsweek</td>
</tr>
<tr>
<td>Reader's Digest</td>
</tr>
<tr>
<td>New Republic</td>
</tr>
<tr>
<td>Psychology Today</td>
</tr>
<tr>
<td>Science News</td>
</tr>
<tr>
<td>Humanist</td>
</tr>
<tr>
<td>National Geographic</td>
</tr>
</tbody>
</table>
5. Social Issues Resources Series & Newspaper Use

The Social Issues Resource Series (SIRS) is a collection of reprinted periodical articles (many not indexed by READERS' GUIDE) and government documents. The reprints are housed in three-ring notebooks, and each notebook relates to a broad current social issue. These notebooks have become a common reference source in high school collections across the country. Carmel High School has invested in the entire series. Both groups of students made use of the SIRS notebooks, but the 1986 group showed a dramatic increase in the use of this material.

The bibliographies from the 41 students in the 1986 group listed 39 items from the SIRS series, while the 40 students in the 1985 group listed 10 items. The number of citations from materials located in the SIRS series totaled 70 for the 1986 group and 28 for the 1985 group. The average number of citations per item, however, remained the same from one group to the next as 1.8 citations were related to an item from the SIRS notebooks.

Higher use of the SIRS materials is probably more related to availability than to increased student awareness of the materials or any increase in the relationship between the topics of the notebooks and the topics selected by the students. During the 1985 Fall Semester (between the groups involved in this assignment), the entire collection was moved from open access for all students to closed stacks as a part of the back holdings of periodicals. This was done because the loose-leaf articles were being taken from the notebooks, and few were returning. Often the articles taken were associated with some of the more popular topics high school students select. Before the 1986 group had access to the SIRS collection for this assignment, most of the lost articles had been replaced and greater control had been placed on their circulation. Thus, some of the "hotter" articles were available to the 1986 group and were not available to the 1985 group.

The use of newspaper articles showed an increase from 1985 also. The Carmel High School Library houses the indexes and microforms which allow students full use of NewsBank, The New York Times, and InfoFile (high school library vertical file of newspaper articles, pamphlets, magazine clippings).

The 41 students in the 1986 group listed 139 sources from various newspapers in their bibliographies while the 40 students in the 1985 group listed 100. Total number of citations related to these newspaper articles was 259 in 1986 and 159 in 1985. The average number of citations per newspaper article in the 1986 group was 1.9, higher than the 1985 group at 1.6.
6. Student Bibliography Content

Bibliographies of the two student groups were examined to determine if there were any shifts in the information formats used. Seven categories were used to tally the sources listed in the students' bibliographies: Books, Magazines (periodicals from the popular periodical indexes such as Readers' Guide and the SIRS series), Journals (periodicals not listed in RG, not contained in the SIRS series, but located through the use of subject periodical indexes), Newspapers, Files (pamphlets located through the Carmel High information file, Facts on File, or Editorial Research Reports), Interviews, Mass Media (information from television or movies).

A total of 449 sources were listed in the bibliographies of the 1986 group, and 381 sources were listed in the 1985 bibliographies. The 41 students in the 1986 group averaged 11 sources per bibliography, and the 40 students in the 1985 group averaged 9.5.

Major shifts in the information sources were in the book and journal formats. Twenty-two percent of the sources listed by the 1986 group were book titles, a drop of 8% from the 30% tallied in the 1985 bibliographies. The 1986 group, however, showed a dramatic increase in the use of journal articles over the 1985 group. The 41 students who had access to Wilsearch in 1986 listed 36 journal titles in their bibliographies or 7% of the total sources listed. This was up greatly from the 40 students of the 1985 group when only five journals were listed in the bibliographies, or about 1% of the total sources used.

Newspapers were the most frequently listed format of information by the 1986 group, while magazines were the most frequently listed format in the bibliographies of the 1985 students.

Table 8
SOURCES LISTED IN STUDENT BIBLIOGRAPHIES
BY INFORMATION FORMAT

<table>
<thead>
<tr>
<th>FORMAT</th>
<th>1986</th>
<th>1985</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NUMBER</td>
<td>% OF TOTAL</td>
</tr>
<tr>
<td>Book</td>
<td>97</td>
<td>22%</td>
</tr>
<tr>
<td>Magazine</td>
<td>127</td>
<td>28%</td>
</tr>
<tr>
<td>Journal</td>
<td>36</td>
<td>8%</td>
</tr>
<tr>
<td>Newspaper</td>
<td>139</td>
<td>31%</td>
</tr>
<tr>
<td>Files</td>
<td>46</td>
<td>10%</td>
</tr>
<tr>
<td>Interview</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Mass Media</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>449</td>
<td></td>
</tr>
</tbody>
</table>

24
7. Average Number of Sources in Bibliographies

The 1986 group showed an increase of 16% over the 1985 group in the average number of sources listed in the bibliography. Much of this increase was associated with journals and newspapers.

Table 9
AVERAGE NUMBER OF SOURCES LISTED IN STUDENT BIBLIOGRAPHIES

<table>
<thead>
<tr>
<th>FORMAT</th>
<th>1986 Average</th>
<th>1985 Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book</td>
<td>2.4</td>
<td>2.9</td>
</tr>
<tr>
<td>Magazine</td>
<td>3.1</td>
<td>3.0</td>
</tr>
<tr>
<td>Journal</td>
<td>.9</td>
<td>.1</td>
</tr>
<tr>
<td>Newspaper</td>
<td>3.4</td>
<td>2.5</td>
</tr>
<tr>
<td>Files</td>
<td>1.1</td>
<td>1.0</td>
</tr>
<tr>
<td>Interviews</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mass Media</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Average number of sources in bibliography: 11.0 9.5
8. Frequency of Footnotes

The frequency of footnotes to sources used by the students was compiled to assist in determining the extent of the use of various information formats. The 1986 group compiled a total of 1,017 footnotes while the total for the 1985 group was 924.

All of the major information formats had shifts in the percentage of footnotes. The newspaper format showed the greatest shift as 25% of the footnotes in the 1986 papers were from the newspaper format and only 17% in 1985. The percentage of footnotes or references to books dropped from 43% of the total footnotes in 1985 to 36% in 1986. Twenty-two percent of the footnotes for the 1986 group were references to magazines, a drop from the 29% of the footnotes for the 1985 group. Seven percent of the footnotes for the 1986 group were references to journals, a dramatic increase over the 1% compiled by the 1985 group which did not have access to Wilsearch.

Table 10
FOOTNOTES COMPILED IN STUDENT PAPERS BY INFORMATION FORMAT

<table>
<thead>
<tr>
<th>FORMAT</th>
<th>1986</th>
<th>% OF TOTAL</th>
<th>1985</th>
<th>% OF TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book</td>
<td>368</td>
<td>36%</td>
<td>400</td>
<td>43%</td>
</tr>
<tr>
<td>Magazine</td>
<td>227</td>
<td>22%</td>
<td>265</td>
<td>29%</td>
</tr>
<tr>
<td>Journal</td>
<td>70</td>
<td>7%</td>
<td>7</td>
<td>1%</td>
</tr>
<tr>
<td>Newspaper</td>
<td>259</td>
<td>25%</td>
<td>159</td>
<td>17%</td>
</tr>
<tr>
<td>Files</td>
<td>75</td>
<td>7%</td>
<td>88</td>
<td>10%</td>
</tr>
<tr>
<td>Interview</td>
<td>13</td>
<td>1%</td>
<td>5</td>
<td>1%</td>
</tr>
<tr>
<td>Mass Media</td>
<td>5</td>
<td>-</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>1017</td>
<td></td>
<td>924</td>
<td></td>
</tr>
</tbody>
</table>
9. Average Number of Footnotes Per Paper

The 1986 group showed an increase of 7% in the average number of footnotes per paper compared to the 1985 group. The greatest increases were in the newspaper and journal formats. The 1986 group averaged 6.3 footnotes per paper from the newspaper format while the 1985 group averaged 3.9. The 1986 group averaged 1.7 footnotes per paper from journals while the 1985 group averaged .2.

Table 11
AVERAGE NUMBER OF FOOTNOTES PER PAPER
BY INFORMATION FORMAT

<table>
<thead>
<tr>
<th>FORMAT</th>
<th>1986 AVERAGE</th>
<th>1985 AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book</td>
<td>9.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Magazine</td>
<td>5.5</td>
<td>6.6</td>
</tr>
<tr>
<td>Journal</td>
<td>1.7</td>
<td>1.2</td>
</tr>
<tr>
<td>Newspaper</td>
<td>6.3</td>
<td>3.9</td>
</tr>
<tr>
<td>Files</td>
<td>1.8</td>
<td>2.2</td>
</tr>
<tr>
<td>Interview</td>
<td>.3</td>
<td>.1</td>
</tr>
<tr>
<td>Mass Media</td>
<td>.1</td>
<td>-</td>
</tr>
</tbody>
</table>

Average total footnotes: 24.8

10. Average Number of Footnotes Per Format

For both groups, the average number of footnotes or references per format was similar. Generally, students averaged between 3 and 4 references per book used; about two references per magazine article, journal, newspaper article, or pamphlet used.

Table 12
AVERAGE NUMBER OF FOOTNOTES PER FORMAT

<table>
<thead>
<tr>
<th>FORMAT</th>
<th>1986 AVERAGE</th>
<th>1985 AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book</td>
<td>3.8</td>
<td>3.4</td>
</tr>
<tr>
<td>Magazine</td>
<td>1.8</td>
<td>2.2</td>
</tr>
<tr>
<td>Journal</td>
<td>1.7</td>
<td>2.0</td>
</tr>
<tr>
<td>Newspaper</td>
<td>1.9</td>
<td>1.6</td>
</tr>
<tr>
<td>Files</td>
<td>1.8</td>
<td>2.2</td>
</tr>
</tbody>
</table>
11. Key Sources

In several cases the student would rely very heavily on one source to document his or her paper. Although it might be argued that too much attention to one source is counter to an assignment which is designed to encourage students to explore many different sources, identification of these heavily cited sources helps to identify items from which the students seemed to draw a great deal of information relative to the other sources used.

The question here concerns the number of these heavily used sources which were identified by the student through the use of Wilsearch.

A formula was devised in order to identify the KEY SOURCES, or the most heavily used sources relative to the other sources cited by the students. A key source was defined as one which was cited an extensive number of times for its respective information format. The key source was determined by doubling the average number of footnotes for "x" format and dividing that number by the average number of citations per paper for the group. The percentage generated by this formula was then used against each paper within a group to identify the key sources.

EXAMPLE:

\[
KS = \frac{2 \times \text{(AVERAGE NUMBER OF FOOTNOTES PER FORMAT)}}{\text{AVERAGE NUMBER OF FOOTNOTES PER PAPER}} \times 100 \%
\]

KEY SOURCE FOR BOOK FORMAT FOR THE 41 1986 STUDENTS =

\[
\frac{7.6}{24.3} = 31\% \text{ OF THE TOTAL FOOTNOTES OF "X" STUDENT}
\]

If the total number of footnotes for a student's paper is equal to 27, and the task is to identify the key book sources for that paper, one determines 31% of 27 or 8.4. A key book source for this paper would be one which is cited eight or more times.
To identify key magazine or journal sources for the same student's paper, one determines first the percentage of magazine or journal references relative to the rest of the class to be called a key source. Magazine and journal articles generate fewer references from the student, on the average, than do books (1.8 for magazines to 3.8 for books). Again the formula is applied:

\[
\frac{3.6}{24.3} = 15\% \text{ OF THE TOTAL FOOTNOTES OF "X" STUDENT}
\]

Therefore, a key journal or magazine source would need to account for 15% of the students total footnotes or references. If the total number of footnotes is 27, then a key periodical source is one which is cited four or more times.

This formula was applied to both groups of papers in order to identify the key sources of information and in order to identify the number of key sources which were obtained through Wilsearch.

In the case of the 1985 student group, six books were determined to be key sources and 6 periodical articles were determined to be key sources. One pamphlet was determined to be a key source. None of the students had more than one key source for his or her paper.

In the case of the 1986 student group, which had access to Wilsearch, ten books and five periodical articles were determined to be key sources. One newspaper article was determined to be a key source. None of the students had more than one key source for his or her paper. Of the ten key book sources, three had been located through the use of Wilsearch. Of the five key periodical sources, two had been located through the use of Wilsearch.

Therefore, 30% of the major or key book sources for the 1986 class were located through Wilsearch, and 40% of the major or key periodical sources were located through Wilsearch.
12. Interlibrary Loan Cost

In order to obtain the documents identified through the use of Wilsearch, the local university library (Indiana University Purdue University at Indianapolis or IUPUI) and the main library on the campus of Indiana University at Bloomington were searched. Books located on the shelves at either university library were checked out and brought to the students at Carmel High School within five days of the student's request. Journal articles were copied and also made available to the students within five days. There was no cost for the service to the high school or to the students.

Of the materials requested by the students, 72% were located and provided to the students. This represented the location of 133 items out of 184 requested. 18 of 46 books requested (39% fill rate) were located. 115 of 138 periodical articles requested (83% fill rate) were located. The fill rate for both formats would have been higher if the assignment had allowed for an additional three weeks to use the interlibrary loan services to contact other libraries. An approximate minimum cost for the acquisition of these specific items would have been $300 including postage and photocopying expenses.

Additional expenses related to the identification and retrieval of materials which would need to be taken into account would be the school's membership in an interlibrary loan network, and the expenses which a member of such a network must assume in order to be reciprocal in the exchange of materials. Expenses for sending materials to other libraries have been estimated by several university libraries to run from $10 to $17 per item. Such estimates include labor costs for a specific additional staff to handle interlibrary loan. The true cost to the Carmel High School Library for interlibrary loan exchange would probably involve postage, or about $2 for each item sent. Insurance to loan nonprint media through the mail would run from $5 to $10 per item owned.

A total of 132 searches were conducted specifically for information related to the student projects. Assuming the cost of Wilsearch was held to the minimum per search rate of $1 per search, an additional $132 would need to be added to the expenses for identifying the materials. This does not include the initial cost of approximately $250 for the Wilsearch software.

Of the items requested through interlibrary loan, 13 books and 28 periodical articles were cited in the student papers. Approximate cost per item obtained and used by the students from interlibrary loan for this project was, at a minimum, $10.50. The minimum average cost for each item requested, in this case, was $3.50.
13. Interlibrary Loans: Book Use Rate

The total number of book citations which were printed by the students as a result of the use of Wilsearch was 101. Of that total, 46 (46%) were requested. 18 of those books were located, and 13 of the 18 (72%) were cited in the papers.

Table 13
BOOKS SELECTED, REQUESTED & CITED FROM STUDENT USE OF WILSEARCH

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total book citations printed from Wilsearch</td>
<td>101</td>
</tr>
<tr>
<td>Total book titles requested for ILL</td>
<td>46</td>
</tr>
<tr>
<td>Total book titles located through ILL</td>
<td>18</td>
</tr>
<tr>
<td>Total book titles cited in student papers from ILL</td>
<td>13</td>
</tr>
<tr>
<td>Total book use rate (cited divided by located)</td>
<td>.722</td>
</tr>
</tbody>
</table>
14. Interlibrary Loan: Periodical Use Rate

The total number of magazine and journal citations printed by the students as a result of the use of Wilsearch was 561. This number is reduced to 440 when the citations to articles indexed through the Readers' Guide are subtracted (121). Students were not allowed to request magazine articles located through the Readers’ Guide unless the Carmel High School Library did not have a copy of the magazine. Of the 440 printed citations, 138 were requested (31%); 115 of the 138 located (83%). Of the 115 articles copied and given to the students, 28 (24%) were cited in their papers.

Of the 23 periodical articles not located and retrieved for the students, four were in reality book reviews (two of these eventually led to specific book titles which the students used); four of the articles were in periodicals not yet processed and placed on the shelves of the current periodicals (Wilsonline had indexed the periodical sooner than it was available at either of the two university libraries used); and eight articles were in periodicals which had been sent to the binders. In total, this left only five periodical articles which were in periodicals simply not subscribed to by either of the two university libraries used. Given three to four additional weeks, all of the articles could have been retrieved. This, of course, underlines the fact that materials indexed through the Wilson special subject periodical indexes are readily available through most college and university libraries.

Table 14

<table>
<thead>
<tr>
<th>JOURNAL ARTICLES SELECTED, REQUESTED, &amp; CITED FROM STUDENT USE OF WILSEARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total periodical titles printed from Wilsearch</td>
</tr>
<tr>
<td>Total periodical titles not from Readers’ Guide</td>
</tr>
<tr>
<td>Total periodical titles requested for ILL</td>
</tr>
<tr>
<td>Total periodical titles located through ILL</td>
</tr>
<tr>
<td>Total periodical titles cited in student papers from ILL</td>
</tr>
<tr>
<td>Total periodical use rate (cited divided by located)</td>
</tr>
</tbody>
</table>

32
15. Periodical Use By Wilsearch Database

Of the 92 items retrieved through interlibrary loan and not used by the students, 36 (39%) had been located through Wilsearch and the use of the SOCIAL SCIENCES database. 21 of the retrieved, but not used items, were located through Wilsearch and the use of the EDUCATION index.

Table 15
ITEMS RETRIEVED THROUGH ILL BUT NOT CITED;
BY WILSON DATABASE

<table>
<thead>
<tr>
<th>WILSEARCH INDEX DATABASE</th>
<th>NUMBER LOCATED, RECEIVED, BUT NOT USED</th>
<th>PERCENT OF TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Sciences</td>
<td>36</td>
<td>39%</td>
</tr>
<tr>
<td>Education</td>
<td>21</td>
<td>23%</td>
</tr>
<tr>
<td>Humanities</td>
<td>10</td>
<td>11%</td>
</tr>
<tr>
<td>General Science</td>
<td>8</td>
<td>9%</td>
</tr>
<tr>
<td>Business Periodicals</td>
<td>7</td>
<td>7%</td>
</tr>
<tr>
<td>Books</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>Legal Periodicals</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>Applied Science</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td></td>
</tr>
</tbody>
</table>

Of the 41 items located through the use of Wilsearch and retrieved through interlibrary loan, 13 (32%) were books (MARC AND CBI); 10 (24%) were from SOCIAL SCIENCES index; eight (20%) were from the EDUCATION index.

Table 16
ITEMS RETRIEVED THROUGH ILL AND CITED;
BY WILSEARCH DATABASE

<table>
<thead>
<tr>
<th>WILSEARCH INDEX DATABASE</th>
<th>NUMBER LOCATED, RECEIVED, AND CITED</th>
<th>PERCENT OF TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books</td>
<td>13</td>
<td>32%</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>10</td>
<td>24%</td>
</tr>
<tr>
<td>Education</td>
<td>8</td>
<td>20%</td>
</tr>
<tr>
<td>Legal Periodicals</td>
<td>4</td>
<td>10%</td>
</tr>
<tr>
<td>General Science</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>Humanities</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>Applied Science</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Business Periodicals</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>41</td>
<td></td>
</tr>
</tbody>
</table>

33
16. Total Use Rate

Of the 133 items retrieved for the students from interlibrary loan, 41 were used as references within the papers. This generated a USE RATE of .308 or 31%. The highest use rate of the individual databases available to the students through Wilsearch was associated with book titles (MARC and CDI), as 13 of the 18 books identified were used; a use rate of .722. Nearly three-fourths of the book titles retrieved were used by the students. LEGAL PERIODICALS index generated a use rate of .500. The HUMANITIES index and the BUSINESS PERIODICALS index generated very low use rates compared to the other indexes used.

<table>
<thead>
<tr>
<th>DATABASE OR INDEX TITLE</th>
<th>CITED</th>
<th>NOT CITED</th>
<th>USE RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books</td>
<td>13</td>
<td>5</td>
<td>.722</td>
</tr>
<tr>
<td>Legal Periodicals</td>
<td>4</td>
<td>4</td>
<td>.500</td>
</tr>
<tr>
<td>Applied Science</td>
<td>1</td>
<td>1</td>
<td>.500</td>
</tr>
<tr>
<td>Education</td>
<td>8</td>
<td>21</td>
<td>.276</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>10</td>
<td>36</td>
<td>.217</td>
</tr>
<tr>
<td>General Science</td>
<td>2</td>
<td>8</td>
<td>.200</td>
</tr>
<tr>
<td>Humanities</td>
<td>2</td>
<td>10</td>
<td>.167</td>
</tr>
<tr>
<td>Business Periodicals</td>
<td>1</td>
<td>7</td>
<td>.125</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>41</td>
<td>92</td>
<td>.308</td>
</tr>
</tbody>
</table>

Table 17 TOTAL USE RATES OF WILSEARCH DATABASES
17. Use Rate Per Item

Each of the items which was retrieved through interlibrary loan and used by the student was examined to determine the frequency of use for each item. Of the 28 periodical articles which were used, a total of 49 footnotes resulted from those articles. This represented an average of 1.8 footnotes per article, the same as the average use of other periodical and newspaper articles the students found through the use of their local high school library. Of the 13 books obtained through interlibrary loan and used by the students, the average number of footnotes per book was 5.6, higher than the average 3.8 per book footnote average for all books used by the 1986 student group.

18. Student Opinion of Most Useful Indexes

Over a third of the students (37%) indicated that the most useful index was either Wilsearch or a database located through Wilsearch. (see page 6, Appendix C) About one third (30%) of the students indicated the most useful information item was a source, either book or article, located through the Wilsearch.

About one fourth of the students (24%) indicated that the most useful index was the (printed volumes) READERS' GUIDE.

15% of the students indicated the most useful index was the card catalog of the Carmel High School Library. One fifth (20%) of the students indicated the most useful information item was a source, or a book, located through the high school's card catalog.

Three of the students indicated the newspaper indexes (New York Times and NewsBank) were most useful. Ten percent of the students indicated the most useful information item was a source, or a news article, located through the New York Times Index.
19. Lack of Journal Use

Although a few of the items identified through the use of Wilsearch resulted in key sources for some of the students, the journal articles did not seem to be widely used. In some cases, students who obtained six or seven articles used only one of those articles in his or her paper, and even then footnoted the article only once.

Eleven of the 41 students were identified as individuals who had located potential journal articles through Wilsearch early in the project. Each of these students had requested more items than average (4 items was average, and each of these students had requested 5 or more). The use rate for the items received by these 11 students was also below the overall class average of .306. 16 of 71 items received by these 11 students were used for a rate of .225. Therefore, one wonders why there was such a low use among 11 students who were also some of the strongest students in the class.

Each one of the 11 was asked individually why he or she did not utilize the materials located through Wilsearch more.

None of the students felt he or she received the materials too late to be used in their paper. In most cases they had the materials two weeks before the final draft was due. However, six (55%) of the students indicated they felt frustrated because many of the articles were too long for them to manage. There was simply too much information for them to deal with for an assignment which did not require extensive information. Several said they read the article over three or four times and needed some help to determine what was being said. The trade-off to understand the articles and to then summarize facts for their paper was not worth the effort to meet this assignment.

Four of the 11 students indicated the materials received simply repeated the information they had already obtained at school. Since it did not add anything new, they did not use the materials which came to them after their first set of note cards were completed using materials available at school. Three of the 11 students indicated the articles received did not match their topic. They were unable to tell the content of the article from the title of the article, but requested the article to see if, by chance, the information might be of use. One student said many of the articles received did not support what "I was trying to prove in my paper; the articles were counter to my thesis." One student felt "I had located enough information for my paper within the first couple of days, but thought I would see what was available through Wilsearch...none of it was necessary in order to complete the paper."

Four of the 11 students suggested that Wilsearch be done earlier in the research project so that many of the materials available through the Wilson indexes could be read before a direction or thesis is determined for the paper.
Each of the topics selected and developed by the students had potential for support from the information located through the Wilson indexes. Ranging from "equal pay for equal work" to "the assassination of an arch duke," current social issues and historical events were both covered. Resources were readily available to the students within their own library, although it does lack several basic reference titles which would be useful for many of the topics the students selected.

When asked to indicate the degree of usefulness of various library collections and Wilsearch, ten students indicated they found Wilsearch provided a great deal of information for their paper. The topics and questions associated with those students are listed below. Generally, the successful students were those who conducted a search early and conducted several searches in the time allowed. Wilsearch databases and subject heading terms used are also listed.

**ARTIFICIAL HEART**
- Is the artificial heart worth the complications?
- What are the ethical arguments concerning development of the artificial heart?
- What are the costs for an artificial heart implant?
- What seem to be the future directions for development of the artificial heart?

**GIFTED CHILDREN**
- How are gifted children identified?
- How is giftedness and juvenile delinquency related?
- What is the best way to educate gifted children?

**TEENAGE SUICIDE**
- Why has the teenage suicide rate increased so dramatically?
- Why do people commit suicide?
DYSLEXIA

What is dyslexia?
Is there a cure for dyslexia?
Aside from learning disabilities, what are some differences between individuals who have dyslexia and individuals who don't?
Which is superior, the dyslexic mind or the nondyslexic mind?

EDUCATION
SOCIAL SCIENCES
"dyslexia," "intelligence"
"tests & scales"

THE SIKHS

What is Khalistan?
What is the Golden Temple?
Did most Sikhs want Khalistan?
Why did most Sikhs not want Khalistan?

SOCIAL SCIENCES
READERS' GUIDE
"Sikhs," "Punjab"
"history"

THE GREAT PYRAMID

Who built the great pyramid and when?
Why was it build, what purpose did it serve?
How advanced were ancient civilizations in mathematics?

MARC RECORDS
CBI
"pyramid"
"Egypt"

SPACE STATIONS

How will space stations be constructed?
What will space stations be used for?
Should we build manned or unmanned space stations?
What if we don't have space stations and the Soviets do?

APPLIED SCIENCE
GENERAL SCIENCE
"space stations"
"design," "industrial applications," "construction"
LSD

Should LSD be legalized for medical use?
What are some common misconceptions about LSD?
Could LSD use cause mental regression?

GENERAL SCIENCE
SOCIAL SCIENCE
MARC RECORDS
CBI
"lysergic acid diethylamide," "LSD," "hallucinogenic drugs"
"therapeutic use"

PLU

What is the PLO?
What is the relationship between the PLO and other countries?
Why can't there be peace between the PLO and Israel?

READERS' GUIDE
SOCIAL SCIENCE
"Palestine Liberation Organization"
"Jewish and Arab relations"
"history"

POLYGRAPH TESTS

How accurate is a polygraph test?
Have any businesses used it to screen employees?
What are the infringements on personal rights?
Why should government employees be forced to take a polygraph test?

LEGAL PERIODICALS
SOCIAL SCIENCE
BUSINESS PERIODICALS
"lie detectors," "polygraph"
"employment interviews," "employee rights"
21. Characteristics of Successful Student Searchers

The students who rated Wilsearch high for providing leads to a great deal of information, generally shared the following characteristics:

a. They conducted the search early (eight conducted a search within the first three days Wilsearch was available); gave themselves time to review the print-out and refine search based on subject headings associated with potential titles.

b. They conducted several searches, usually revising the search once or twice at the terminal; all but one returned within two days to conduct another search.

c. They had examined the print indexes and determined potential subject headings prior to use of Wilsearch; adjusted later searches to the subject headings provided by Wilsearch.

d. The most constructive databases for this group were MARC BOOK RECORD, CBI, SOCIAL SCIENCE, LEGAL PERIODICALS, and EDUCATION. GENERAL SCIENCE index and the READERS' GUIDE also proved to be useful. Among these ten students, eight articles were located and used from searching the READERS' GUIDE database through Wilsearch.

The ten students who rated Wilsearch high for providing a great deal of information requested a total of 72 items from their collective print-outs; received 50; used 17; generated a total of 50 footnotes from items located by Wilsearch. This group had a use rate of .340, higher than the average use rate of .308. The 17 items used by these ten students (25% of the class) 42% of the total number of items (41) located through Wilsearch used by the entire class.

These ten students generated a total of 44 footnotes from the items identified through Wilsearch, 36% of the total 123 footnotes generated from Wilsearch items by the entire class. The average number of citations per items located through Wilsearch for the entire class was 2.6 while these ten students averaged 2.2 footnotes per item. Of these ten students, four (40%) located an item which became a key source in their paper; all four items were located through the use of Wilsearch. All of the key sources for the ten students were located through Wilsearch; 50% of the key sources for the entire class were located through Wilsearch.
Successful Searchers Compared to Entire Class

Bibliographies and footnotes of the successful searchers were compared to
the products of the entire class. 16% of the sources listed in their collective
bibliographies were located through Wilsearch; 11% of the sources came through
Wilsearch for the entire class. Nearly a fourth (22%) of the footnotes were
generated by sources located through Wilsearch for the ten students; 12% of the
footnotes compiled by the entire class came from sources located through
Wilsearch.

### Table 18

<table>
<thead>
<tr>
<th>STUDENTS INDICATING HIGH USE OF WILSEARCH SOURCES</th>
<th>TOTAL FOR WILSEARCH BY ENTIRE CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEN RATING</td>
<td>WILSEARCH HIGH</td>
</tr>
<tr>
<td>Total Wilsearch items printed (less RG)</td>
<td>172</td>
</tr>
<tr>
<td>Total Wilsearch items requested through ILL</td>
<td>72</td>
</tr>
<tr>
<td>Percentage of printed items requested</td>
<td>41%</td>
</tr>
<tr>
<td>Total Wilsearch items received through ILL</td>
<td>50</td>
</tr>
<tr>
<td>Percentage of requested items received</td>
<td>34%</td>
</tr>
<tr>
<td>Total Wilsearch items used</td>
<td>17</td>
</tr>
<tr>
<td>Use rate</td>
<td>.340</td>
</tr>
<tr>
<td>Total WS items listed in bibliographies</td>
<td>17</td>
</tr>
<tr>
<td>Average items listed in bibliography</td>
<td>10.6</td>
</tr>
<tr>
<td>Percentage of bibliography from WS items</td>
<td>15%</td>
</tr>
<tr>
<td>Total footnotes generated from WS items</td>
<td>50</td>
</tr>
<tr>
<td>Total footnotes generated</td>
<td>232</td>
</tr>
<tr>
<td>Average number of footnotes per paper</td>
<td>23.2</td>
</tr>
<tr>
<td>Average number of footnotes per WS item</td>
<td>2.9</td>
</tr>
<tr>
<td>Percentage of footnotes from WS items</td>
<td>22%</td>
</tr>
<tr>
<td>Total key sources</td>
<td>4</td>
</tr>
<tr>
<td>Total key sources from Wilsearch</td>
<td>4</td>
</tr>
<tr>
<td>Percentage of key sources from Wilsearch</td>
<td>100%</td>
</tr>
</tbody>
</table>
23. Wilsearch Provided No Leads for Ten Students

Subject areas which served as topics for the students who indicated no useful materials located through Wilsearch are listed below:

**KU KLUX KLAN**
- What influence has the Klan had on U.S. politics?
- Is the KKK still active?
- How does the KKK justify its actions?
- Wilsearch not used, "found plenty of information in the Indianapolis Public Library."

**AUTISM**
- What is autism?
- What causes autism?
- How is autism treated?
- Wilsearch not used, "had plenty of information without using."

**ASSASSINATION OF ARCHDUKE FERDINAND**
- Who was the Archduke Ferdinand?
- What impact did his death have on the world?
- Who caused his death?
- Who was the Black Hand?
- Why were the Black Hand people so angry at Austria?
- Wilsearch not used, "did not have time to fill out the form."

**CONTRAS**
- Should the U.S. continue to increase aid to the Contras?
- How much aid have we given?
- Why do we give military aid in Latin America?
- SOCIAL SCIENCES
  - "military assistance, American/Nicaragua"

**RELIGION**
- As man becomes more advanced, does his government and religion become more separate?
- Have religion and government been more closely related in the past?
- Wilsearch not used, "plenty of information without Wilsearch."

**IRANIAN REVOLUTION**
- Why did the Iranian Revolution take place?
- Why was the Shah so ignorant of the people's needs?
- SOCIAL SCIENCES
  - LEGAL PERIODICALS
  - "Iran"
  - "Ayatolla Ruhollah Khomeini"
MENTAL INSTITUTIONS
Is there need for reform in mental institutions?
What laws exist to protect the rights of people in mental institutions?
Is there abuse of patients in mental institutions?

READERS' GUIDE
SOCIAL SCIENCES
MARC RECORD
CBI
"mentally ill/ civil rights"
"mental health laws/ United States"
"psychiatric hospitals/ United States"

MENTAL DEPRESSION
"How is mental depression treated?"
"Does depression lead to suicide?"
"How great is the depression problem in the U. S."
Wilsen, not used, "found a wealth of information in the Carmel high school and public libraries."

CHILD ABUSE IN DAY-CARE CENTERS
Where is child abuse in day-care centers happening?
Why is it happening?
What can be done to stop it?

READERS' GUIDE
SOCIAL SCIENCES
LEGAL PERIODICALS
"child abuse and neglect"
"foster care"
"day-care centers"

PSYCHO-ANALYSIS
What are the Id, Ego, and Superego?
What is psycho-analysis?

SOCIAL SCIENCES
"Fruedian analysis"
"id," "ego," "superego"
24. Characteristics of Unsuccessful Student Searchers

Generally, the characteristics of those ten students who indicated no useful information located through Wilsearch include:

a. most conducted a search late in the time period allowed (four conducted a search over seven days into the period Wilsearch was available).

b. of those who conducted a search (five of the ten) only one conducted more than one search; no time was given to refining the subject headings for additional searches or considering different indexes.

c. no time was given to refining the selection of useful subject headings through an examination of the print indexes.

d. the most used database was SOCIAL SCIENCES index, which usually proved not to be suited for the subject; READERS' GUIDE, LEGAL PERIODICALS, or MARC BOOKS would have generally been more useful.

e. Most of these students indicated they had located enough information through the use of the print READERS' GUIDE, the newspaper indexes and the high school card catalog to complete their paper without the use of Wilsearch.

Generally, there were no major differences between the subject areas of the group which reported a great deal of information from the use of Wilsearch and the group which reported no location of useful materials. Four students in the group which did not locate materials through Wilsearch selected topics which were "historical" as opposed to "current social" or "current scientific." These students could have benefited from a more extensive special encyclopedia collection in the reference collection of the high school library (many titles of special encyclopedias are not held); and should have utilized the MARC RECORD, CBI, and BOOK REVIEW DIGEST through Wilsearch. Use of both the special encyclopedias and the BOOK Wilsonline database would lead to useful titles. These students, however, searching late in the period allowed for conducting such searches, would not have received most of their book titles in time to use for their papers.
25. Lack of Special Encyclopedia Sets

Although the Carmel High School Library has an adequate collection of general information encyclopedias, it lacks several of the following sets which would be of use to all students. Not only would students gain valuable quick background information on their selected topics, but students, if taught to be aware of this process, could identify leads to additional materials through the useful bibliographies following most of the major articles. Important terms, events and personalities could be identified also. Such information would be beneficial as students begin to formulate the approach they want to take to searching the MARC RECORD, CUMULATIVE BOOK, BOOK REVIEW, and BIOGRAPHY index databases through Wilsonline.

Some additional Special Encyclopedias to be considered for CHS Library Collection

---------------------------------------------
ENCYCLOPEDIA OF WORLD ART (McGraw-Hill)
ENCYCLOPEDIA OF EDUCATION (Macmillan)
NEW CAMBRIDGE MODERN HISTORY (Cambridge)
ENCYCLOPEDIA OF WORLD HISTORY (Houghton Mifflin)
CAMBRIDGE HISTORY OF ENGLISH LITERATURE (Cambridge)
CASSELL’S ENCYCLOPEDIA OF WORLD LITERATURE (Morrow)
NEW GROVE DICTIONARY OF MUSIC (Macmillan)
ENCYCLOPEDIA OF PHILOSOPHY (Macmillan)
NEW CATHOLIC ENCYCLOPEDIA (McGraw-Hill)
ENCYCLOPEDIA JUDAICA (Collier)
ENCYCLOPEDIA OF SCIENCE AND TECHNOLOGY (McGraw-Hill)
YEARBOOK OF SCIENCE AND TECHNOLOGY (McGraw-Hill)
INTERNATIONAL ENCYCLOPEDIA OF SOCIAL SCIENCES (Macmillan)
ENCYCLOPEDIA OF SOCIAL SCIENCES (Collier)
SUMMARY OF FINDINGS FOR QUESTIONS 1–3

1. Can the student demonstrate the ability to formulate the information necessary to search the Wilsonline databases through the use of the Wilsearch software?

Students were only instructed in the process of requesting one or two relevant Wilsonline databases through Wilsearch and searching through the combination of verified subject headings. Students operated the microcomputer and proceeded through the process of requesting a specific database and placing the subject headings to be searched on the subject lines. Students were not shown the process of tracing authors, specific date limitations, specific journal titles, specific monograph titles, nor use of Dewey number tracings. Students demonstrated both the ability and willingness to verify subject headings through the printed Wilson indexes, select a relevant database based on an initial search of the print indexes, step through the search using the subject tracings and call down a number of the located citations for review. Often students would revise and run a second or third search either for more citations when more than 20 were located, or to use the subject tracings associated with the items selected. Students were given brief instruction in the searching process, but seemed to learn more readily through observation of a classmate. Several students would observe a student search and question from time to time what was taking place so they would be ready when it was time for one of them to search. After their first search, students tended to proceed through the second search without a great deal of assistance.

a. When given the opportunity, most of the 41 students (88%) did give time to review the print Wilson indexes to verify potential subject tracings and did attempt to locate materials through the use of Wilsearch.

b. As is typical in most high school library research assignments, there was a surge, or high demand, to use the Wilsearch system by a number of students at one time. If the Wilsearch system is to be managed for access by several hundred students, additional terminals and scheduling of search times will be necessary. In addition, time for assistance and guidance from the library staff or the class instructors will need to be given to the students above and beyond what is currently provided. This will result in additional "information mediation" or assistance in the selection of search terms, potential databases, review of initial searches and review of initial sources located. The average time for a student search was between 10 and 20 minutes from entering the search terms until completing the print-out. Additional time however, perhaps fifteen minutes, is needed by the student to verify potential subject tracings before the search and to review the search findings with a librarian or teacher. Additional time was needed for students to quickly review the citations printed and determine if another search should take place. Second and third searches will add 10 minutes each to the time the student controls the terminal before others may use the software.

Several students in the group did return to the library after school or during some other class period to conduct their search. Generally, students demonstrated a desire to use the system and felt the experience was valuable.

(page 6 #1)

(page 7 #3)
c. Because of the limited amount of information necessary to meet the given assignment, most of the students were satisfied with only one search through Wilsonline. The few who did not search, did not do so because they had already located enough information through the sources in the high school library collection. In order for the Wilsonline databases to be used to a greater degree, the demands of the assignment will need to be increased and additional time allowed for the refinement of the student searches. This refinement would be based on the initial sources located by the student through both the high school library collection and those located through interlibrary loan. Students, with the assistance of the teachers and the librarian, would revise their initial outline and research questions in order to identify new and additional information. A second and more refined search for materials would then be made. Such an extensive level of information searching, however, may well be beyond the necessary requirements for the average high school term paper.

(d. After receiving limited instruction and conducting at least one search through the use of Wilssearch, most students retained the knowledge of the basic steps for locating information through Wilsonline via Wilssearch. More extensive pre-searching instruction, however, would be beneficial to the students. More information should be given the students concerning the content and limitations of the various databases available through Wilsonline. Value of searching the BOOK database by specific authors or Dewey numbers is one of assistance. Students need to be aware of the level and types of information available in such indexes as SOCIAL SCIENCE and HUMANITIES index. Students need to be shown how different information needs result in different search approaches. A search for information for a paper on an historic topic may differ from the search for the most recent information possible for a topic which is concerned with a current social issue.

Students were observed to work together in order to conduct a search and tended to learn from each other's mistakes and successes. Whenever possible, a student who has verified his or her initial search terms and is ready to conduct a first search, should be encouraged to watch another student step through the search process. Students should be encouraged to share their findings and get advice from students who have been "successful" in locating information through Wilssearch. Such interaction would be beneficial even though most of the students felt they could conduct a search using the Wilssearch software "without a great deal of assistance" after experiencing the search process for this assignment.

(pages 8 #4; 12 #7a)
e. After experiencing the use of the Wilsearch software and locating potential items through Wilson online, most of the students could list meaningful advantages and disadvantages of using online searching. Although many had to wait to use the terminal, most of the students indicated the Wilsearch software provided an easy way to search through a great many leads to information in a quick and efficient manner. Most of the negative comments concerning Wilsearch involved the problem of waiting for other students to complete a search. Some students felt they wasted a great deal of time simply waiting for others to get done, or became frustrated because they did not know when they would get their turn. The assignment was structured to the extent that students had to use time wisely, and several simply moved on to other things when a terminal was not available. This group could have benefited from two terminals.

f. A majority of the students were so impressed with the opportunity to use Wilsearch that they felt it important enough to tell their friends and parents about the exercise. Most of the students felt they would use some kind of online searching again in the near future and most of the students recommended that their friends use Wilsearch.

g. Most of the students seemed to be satisfied enough with the potential for an online search through the use of Wilsearch, that they indicated they would pay for the service. Many students, however, were disappointed with the materials actually received through interlibrary loan. They wanted to reserve payment for such materials until they had a chance to examine the contents of the book or journal article. Such reaction is really not uncommon for most people who have used online searching and interlibrary loan. Although the students tended to make reasonable requests for interlibrary loan materials (most selected only those items they felt might be worthwhile), their selection of items might become more conservative after experiencing the limitations of the materials received. It is difficult to tell since only a few students had the time to complete additional searches and request additional materials after receiving interlibrary loan items from the first search.
2. Will the student select potential materials identified through the use of Wilsearch or Wilsonline?

Students tended to make wise choices from the citations generated through the use of Wilsearch. Students tended to be selective in both the terms used for the search and in the items for which they wanted to invest additional time and effort to obtain.

a. Most of the students located leads to potential items of information through the use of Wilsearch.
   (page 13 #1,#2)

b. The SOCIAL SCIENCES, READERS' GUIDE, and BOOK databases were searched most often. However BUSINESS PERIODICAL, EDUCATION, and LEGAL PERIODICAL databases generated the most student selected items for print-out on the average per search.
   (pages 14 #3; 15 #4; 16 #5)

c. Students tended to select citations of potential information items for the print-out based on the title of the item and the associated subject headings listed with the citation. In several cases, when students requested what appeared to be journal articles, they received what were actually book reviews. In two of those cases, the review led to the request and eventual use of the book.
   (page 17 #6)

e. Overall, Wilsearch ranked high in student opinion as being a worthwhile service to locate leads to information.
   (page 18 #7)
3. Will the student use materials identified through the use of Wilsearch or Wilsonline?

Students were found to be able to use the Wilsearch software in order to locate leads to potential information sources. They also tended to be able to select items from the Wilsonline databases which seemed to be citations leading to worthwhile materials. The extent of the use of the materials obtained as a result of using Wilsearch, however, was not as extensive as it might have been if they had had additional time to review the materials received and to conduct additional searches. It can be said, however, that the students who used Wilsearch also tended to use a wider variety of materials in completing the assignment than did the previous year's group which did not have access to Wilsearch.

a. The basic length and content of the final student papers remained the same from the 1985 group which did not have access to Wilsearch to the 1986 group which did have access. (page 19 #1)

b. The student group which had access to Wilsearch and interlibrary loan generated a record of using a wider variety of journal sources than did the group which did not have access to Wilsearch. Although the list of the additional journals used by the Wilsearch group is impressive, the impact of the journal articles themselves is difficult to estimate. Generally, few of the journal articles retrieved were used, and the ones used were not cited extensively by the students. More importantly, students often expressed difficulty in understanding the content of these higher level and more professional, technical, or scholarly journals. Basically, students in both groups tended to rely heavily on popular news magazines and newspapers for their information. (pages 20 #2; 21 #3)

c. The most frequently used periodicals were those commonly indexed in the READERS' GUIDE, and would generally be termed popular news and information magazines. This high use of current news periodicals was true for both 1985 and 1986 groups. (pages 21 #3, 22 #4)

d. In addition to the popular news magazines, the newspaper microfilm available to the students through the high school library was heavily used. Much of this high use can be attributed to these factors: 1) required examination of these sources as stated in the given assignment, 2) convenient availability of the materials, and 3) high content of understandable and factual information easily usable for meeting the basic demands of the assignment. (page 23 #5)

e. Both groups tended to have an even distribution of information format use among books, periodicals, and newspapers. The group which had access to Wilsearch, however, did show less use of books and greater use of journal articles than the group without access to Wilsearch. (pages 24 #6; 26 #8)
f. On the average per paper, the Wilsearch group showed a slightly higher number of items in the bibliographies and a slightly high number of footnotes than the group which did not have access to Wilsearch. Most of the increase was accounted for through greater use of newspaper articles and the SIRS periodical notebooks conveniently available. However, some degree of the increase could also be related to greater use of journal articles, most of which were located through Wilsearch.

(g) The average number of footnotes per information source remained the same from the non-Wilsearch group to the group which had access to Wilsearch. Lack of more numerous references to journal related information may, however, call for greater assistance from the teachers and librarians in helping students understand the information potential from these professional articles.

h. A definition for a "major" or "key source" was established. Basically, this is a source from which the student has tended to draw a great deal of information relative to the average amount of information taken from sources of a similar information format. The number of key sources used did not change from one group to the next. However, many of the key sources used by the 1986 group were items located as a result of the use of Wilsearch.

i. The minimum cost for items obtained from interlibrary loan was estimated to be $3.50 per item. The cost per item used, however, was estimated to be a minimum of $10.50 per item. Such expense would encourage teacher and librarian review of the interlibrary loan requests and encourage greater student use of the large public and university libraries available to the students within the local area before materials would be requested through the mail. Expenses related to interlibrary loan, of course, also demand assistance from the librarian in helping the student review the online search print-out so that wise choices can be made. Student searchers in the project seemed to make very sensible decisions concerning items to request through interlibrary loan. Over time, the librarian would become aware of location for many of the journal titles within the community as well as checking local collections for monographic titles. Students should be encouraged to use such local collections, as many of the students did for this project.

j. Students requested almost half of the book citations from their Wilsearch print-outs and used about 75% of the book titles received. Students requested about one third of the journal articles from the Wilsearch print-outs, received 83% of the requests, but used under a fourth of the journal articles received. Monographic titles received through interlibrary loan seemed to be more specific to the student's topic than titles located within the local high school library collection. Journal articles tended to be too technical and too lengthy for students to manage on their own.
k. The SOCIAL SCIENCES and EDUCATION databases tended to be searched most often by the students and also generated many items which the students selected for print-out. However, the highest percentage of items actually used by the students, which was formulated as a "use rate," were those identified through the BOOK and LEGAL PERIODICAL databases. (Pages 33-34 #15, #16)

l. Journal articles obtained as a result of using Wilsearch were footnoted more often, on the average per title, than the popular news magazine articles. Journal articles which ran more than 10 pages not only did not result in more frequent footnotes, but generally were not used at all. Books obtained as a result of using Wilsearch were footnoted, on the average per title, more frequently than books obtained through the high school library or the local public libraries. The book titles obtained as a result of using Wilsearch tended to be more specific to the student's topic area than many of the books obtained within the high school library. (Page 35 #17)

m. Nearly a third of the students in the group which had access to Wilsearch indicated that the Wilsearch system was the most useful "index" used to locate materials. (Page 35 #18)

n. Students who received a large number of articles as a result of the use of Wilsearch, but who failed to use much of the information for completion of their paper, indicated the articles were too long and too complicated, or simply a repetition of information found previously through the news magazines and newspapers in the high school library. Most of these students felt there was not room or time within the requirements of the assignment to deal with these additional journal articles; they had reached an "information overload" both in terms of number of articles and content of individual articles. (Page 36 #19)

o. Students who seemed to have the most success and most satisfaction with the results of using Wilsearch were students who searched early in the time period given; verified subject headings through the print indexes and noted additional subject headings summarized by Wilsearch; and were able to conduct more than one search based on a identification of more useful subject headings and knowledge of the content on first search items received. These students showed a higher percentage of sources in their respective bibliographies, on the average, to be from materials located through Wilsearch than the average per paper for the entire class. The papers of the successful students also showed a greater number of footnotes associated with items located through Wilsearch than the average for the class. (Page 41 #22)
Generally, those students who did not regard Wilsearch as being useful for locating information were those who located enough materials within the local libraries to satisfy themselves and the requirements of the assignment. Several students who did use Wilsearch, but felt they did not locate useful materials were students who searched late in the time period allotted and did not have time to run additional searches based on possible stronger subject headings. A large number of the topics selected by these students were historical in nature. Much of the information of value to their papers was available through the local libraries. However, they should have been encouraged to use the BOOK database to a greater degree through Wilsearch. Such use of the BOOK index would need to be made, however, with enough time to obtain the materials through interlibrary loan.

A basic reference collection is essential in any high school library to support not only ready reference information demands, but also to allow for background information on general research topics. Although Carmel High School has an adequate collection of reference materials for the average high school assignments, in order to provide a foundation of information on a variety of historic and current event topics, additional special encyclopedia sets are necessary. Such materials allow students to identify relevant terms, events, names and places early in the search process. Bibliographies in the special encyclopedia sets allow early use of interlibrary loan for basic book titles.

(page 42 #23; page 44 #24)
(page 45 #25)
QUESTION 4

WILL THE INSTRUCTORS FOR THE COURSE AND THE SCHOOL LIBRARIAN CONSIDER ALTERNATIVE APPROACHES TO THE STRUCTURE OF THE TERM PAPER ASSIGNMENT BASED ON THEIR EXPERIENCES WITH WILSEARCH, WILSONLINE, AND INTERLIBRARY LOAN?

The two teachers and the library staff were most supportive of the use of Wilsearch throughout the project. Both teachers have often encouraged their students to seek and use a variety of information formats and resources. The head librarian has provided online searching service to students for the past year through DIALOR. These educators seem to fully support whatever is necessary in order for students to experience the demands of locating and using materials beyond the standard textbook materials.

It should be emphasized at this point that the assignment used in this pilot is above the normal expectations for most juniors in high school. The two teachers working in cooperation with the head librarian have developed requirements for a research assignment which interests the students and is also demanding on the students' time and academic abilities. The suggestions which follow are not given because the current assignment lacks any merit in intellectual challenge, but the suggestions for restructure of the assignment come from the assumption that this school and this school library want to open as many doors as possible for the students to experience the selection, and wise use of as much of recorded human knowledge as possible.

There are some limitations to any library program which strives to provide all possible avenues to information for its students and teachers. One factor, of course, is money. Compared to other schools of equal size, however, Carmel High School has supported its library program in a very substantial manner. Expenditures for interlibrary loan and use of online databases can probably be justified if the nature of the assignment makes such networking essential. Expense of Wilsearch is probably more than most high school libraries can afford. Even at a minimum of 2,000 searches within one year at one dollar per search, the cost is probably too high except for the largest and most wealthy. A cost rate that would allow for 2500 searches over three years might be more cost effective for most schools. It should be remembered that the school year is nine months long. Use of Wilsearch will come in surges; 300 searches one month and less than 10 the following month.

Carmel High School probably has all of the basic elements to make the most complete use of Wilsearch. It has a large professional library staff, a large periodical collection, a location near several large libraries, the potential to join a network for interlibrary loan, teachers who generally use the library in innovative ways, and a head librarian willing to experiment with new information systems.

The reality of the situation, however, can be summarized in two terms: TIME and OBJECTIVES.
Within the current structure of the class used in this pilot, there simply is
not enough time to use the potential of online searching to its fullest degree.
Students do have time to identify some additional resources, but there is not
enough time to be extensive in either the search or in obtaining all materials
through interlibrary loan. The assignment is packaged within a six week time
period and does not allow for an extended period of time in order for materials
to be located from other parts of the state.

In addition, time is not available for introducing the class to all of the
alternatives in searching the various databases available through Wilsearch.
The limitations of SOCIAL SCIENCES index, APPLIED SCIENCE index, and HUMANITIES
index should be described. Potential use of the Dewey Decimal System through
the BOOK databases should be explained along with reasons for searching early
enough to allow for books to be obtained. There is not time to explain the use
of BIOGRAPHY index or BOOK REVIEW DIGEST within the current structure. There
is not time to review the search successes or failures with the entire class at
some mid-point in the assignment. Most important, the structure does not allow
for a determination of the student's real need for an online search and use of
interlibrary loan. The Wilsonline databases satisfy different information
needs at different states of this research assignment. Objectives and search
procedures need to be identified and matched, and they should be concerned with
such things as recency of information, specificity of information, counter
opinions, authoritative studies and reports, and criticism of opinions.
The Wilson indexes provide leads to information sources to meet all of these
areas, and the Wilsearch software allows the student to enter these various
indexes efficiently. The student can confront the computer as one index tool
and then learn the complexities of the various options as his or her
information needs also become more complex. This takes time and requires that
the assignment include points at which the information needs become more
demanding.
Time is often very difficult to manage within the day-to-day structure of the high school environment. A class of 40 students often has to be managed by moving all of them along at the same rate and meeting the same deadlines. Therefore a student who may not need to go outside of the high school library for resources may initiate an online search early in the process simply because he or she has been told that it takes time to receive materials, or simply because they want to "see what it does." While it is important that students be made aware of the potential of online information systems, it is also important that they understand when and why to use such systems. Not only is the expense of the online service involved, but the expense of obtaining the material must also be considered. Abuse of interlibrary loan includes blindly requesting materials which are not suitable to the patron's needs. Close contact must be established with students as they consider requesting sources. Requests for materials will need to be filtered with a great deal of consideration. A surge or rush of information requests to any one academic library may result in the lose of interlibrary loan privileges.

One level of online searching comes when the student is attempting to identify as much current, and the most recent information possible. This can be accomplished through the use of the online databases in conjunction with using the most current printed indexes. In some cases, the online search may take the student to articles published within the past week and available within the high school library.

A second level of online searching comes when the student has gained some focus of the specific questions to be answered and has established some direction for the potential thesis of the paper. Use of online searching should take place to fill these information specific needs (indepth authoritative materials, materials to meet narrow questions, materials which present specific counter information not located in background readings, or subject specific books not available in the local library) after the student has gained background knowledge of both the topic area and the limitations of the materials found in the local collections.
WHAT ARE THE RECOMMENDATIONS FOR RESTRUCTURING THE TERM PAPER ASSIGNMENT IN ORDER TO ESTABLISH A MORE EFFICIENT USE OF WILSEARCH, WILSONLINE AND INTERLIBRARY LOAN?

Wilsearch provided a good experience for most of the students involved in the project. It provided leads to useful materials which the students would not have otherwise obtained. Several of the papers would not have been completed without access to Wilsearch and the materials obtained through interlibrary loan (see page 37 #20). However, it would be unfair to say the students who used Wilsearch heavily would not have completed the assignment without it. They would have finished the assignment, but the paper might have taken a different direction, or different materials from within the high school library might have been used.

There is no doubt that the students in the pilot group each had the ability to meet the assignment and the high school library housed the necessary resources. Wilsearch did, however, introduce many students to new indexes they had not considered before, and allowed them to identify several sources which eventually became key materials. In the case of these high school students, many were able to stay with their original topic and located materials in order to complete the paper without changing the thesis. At the same time, materials located through Wilsearch allowed several students to raise new questions they had not considered before starting the assignment.
OBJECTIVES FOR GREATER USE OF WILSEARCH

Each student should be encouraged to seek at least one source which goes beyond the popular news information formats. Although not expected to be a scientific study, the additional source should contain evidence and discussion which provides more insight on the student's topic than the facts and impressions summarized in a news magazine or newspaper article. This will not always require the use of Wilsearch in order to locate such material as several students will be able to locate articles and books within the high school library. However, the student should become aware that the Wilson indexes and the Wilsonline databases are a means to locate leads to recent, indepth, subject specific, and authoritative information.

The student will be introduced to the use of Wilsearch through various levels of potential use of the online service. This is done to:

a. allow the student to consider various approaches to online searching at the specific times when different information needs are being experienced.

b. encourage students to make wise and early use of interlibrary loan.
Level One

RECENTLY: Early Use of Wilsearch

a. Early in the information search, students should become aware of the potential for obtaining leads to more recent periodical articles through the use of online searching than through the use of the printed indexes. All students should have the opportunity to seek information published within the past year through the use of Wilsearch.

b. In the case of a current social issue topic, students should seek information which presents the most current factual information for the purpose of comparison to opinion, facts and issue positions given in previous years. Use of the READERS' GUIDE, and the other Wilson indexes to periodical articles relevant to the student's topic may be reviewed, but limited to the immediate past three years.

c. Students who are investigating a current social issue should search for recent book publications concerning their topic area also. This search should be conducted early in the information search in order to allow time for identification of titles which might be obtained through interlibrary loan. This search should be an examination of the Wilsonline BOOK related databases and limited to the past five years of publication. The search should be based on the verified subject headings from the location of more recent information through the periodical databases.

d. Students who are investigating a topic of historical nature should search the BOOK databases early in the information search process. Here the student should seek monographic publications of recent nature, those published within the past ten years, through the use of Wilsearch. Tracings should be based on the use of specific Dewey Decimal Classification numbers which have been verified. Students should identify such titles early to allow location of materials through interlibrary loan. In addition, students should identify potential monographic titles listed in the bibliographies of encyclopedias and general books located in the local collection. These titles should be requested early in the information search as well.

e. Book titles which are located through the use of Wilsearch should be traced for professional criticism through the use of BOOK REVIEW DIGEST. Opinions summarized through this database should be used to determine the best titles to seek through interlibrary loan. Book titles identified through the bibliography of general books associated with the historic titles should also be traced through BOOK REVIEW DIGEST. Book titles identified through encyclopedia articles may be justified as basic and solid potential leads without further review.
Level Two

AUTHORITATIVE AND SUBJECT SPECIFIC: Secondary Use of Wilsearch

a. At this level, the student should seek specific resources which are more in-depth and authoritative than information located through general summaries given in news magazines and books published specifically for the young adult audience. Generally, journal articles should be those which are specific to some narrow issue related to the student's topic and should be in-depth discussions. Most useful journal items will be those which provide at least a five to twenty page discussion and also contain a list of references used to document the author's article. The student should attempt to move from information given in journalistic format to the information generated by researchers or historians whose profession it is to study the specific questions related to the student's selected area of study.

Assistance from the teachers and the librarians will be needed at this point to help the student review and comprehend the value of some of the information obtained.

b. Topic areas related to a current social issue may require further searching in order to locate additional authoritative and subject specific materials. Specific subject headings verified by the students should be traced through the broad subject related databases in order to locate journal articles which cover these more specific issues. Specific journal titles and/or specific authors may become apparent, and these should be searched individually as well.

c. Topic areas related to historic events may be searched at this point in order to locate more recent materials through journals and books. Here the student may have identified on a more narrow basis specific subsets of events related to the historic topic, and will search for related articles or books dealing with that specific event. Authors may be apparent at this point who have published within the past ten years on the historic topic the student is researching. Here specific names should be traced in order to locate additional and related works of potential use.
As the student obtains items from interlibrary loan, several sources may contain references to additional resources. These should be identified with the assistance of the librarian or teacher. If time allows, materials which seem to be strong potential leads to valuable additional materials should be located either through local library collections or through interlibrary loan. Leads to such sources may be identified either through the bibliographies of monographic sources or through the more indepth periodical sources which the student has obtained early in the information search.
SCHEDULE FOR ASSIGNMENT: Allowing for Levels of Wilsearch Use

Week One

1. Protest of students' knowledge of reference tools and indexes housed in the school library. The librarian pretests to determine which inhouse reference tools and indexes need to be emphasized in the introduction to library use.

2. Introduction to the basic requirements for the assignment. The teacher reviews the basic objectives, guidelines and deadlines for the assignment. The length and number of sources should remain the same as in the past assignment. Students, however, should be encouraged to seek recent information, counter evidence for position statements, at least one in-depth discussion of their topic, at least one discussion of some narrow aspect of their topic, and to establish the qualifications of at least one authority related to their topic. Such information should be noted within their final papers.

3. Review of gathering notes and citation. The teacher establishes the basic process for gathering notes for factual information, opinions, and conclusions given in information to be read. In addition to note cards and bibliography cards, the teacher will introduce the process of gathering definitions of major terms and events associated with the potential topic area. Description of authority cards will also be given. The process of listing potential questions which should be raised by the student concerning the topic should be introduced here.

4. Selection of general topic areas. The students' first attempt at composing a thesis statement.

5. Review of inhouse indexes and reference tools relevant to the students' information needs.

6. Introduction of Wilsearch and its potential for leading students to recent information and to book titles. Limitations of the use of interlibrary loan are introduced here. Guidelines for Level One searching are emphasized.

7. Students will begin searching for materials housed locally.
Week Two

1. Students continue background reading through materials located in the local collections. Evidence is gathered concerning local sources as students identify major terms, names, and events related to the general topic. Notes are taken to define these areas.

2. Students compile specific questions related to their broad topic. Questions should include those for which they find immediate answers, and those which become apparent as they read but are not immediately answered through the information sources available.

3. Students conduct Level One online searches. Searches are generally limited to use of broad, but verified, subject headings traced through the READERS' GUIDE and the BOOK databases. Students compile a record of the WILSearch verified subject headings for later more subject specific searching.

Access to at least two terminals, each with WILSearch software and connections to Wilsonline are recommended here.

Week Three

1. Students complete first draft of outline based on questions related to the topic, both answered and unanswered. The outline should contain issues which lead to answers or discussion of the issues related to the posed questions.

2. Students complete a detailed listing of terms, people, and events related to the topic.

3. Students complete initial notecards, bibliography cards, and authority cards.

4. First interlibrary loan requests are sent.

5. The librarian introduces the content of the subject related Wilsonline databases. Methods for conducting Level Two searches are introduced.

6. Students search print Wilson indexes to verify potential subject headings for Level Two searches.

Copies of completed searches should be filed for future reference.
Week Four

1. Students return to class for discussion of initial findings and sharing of potential questions related to topic. The librarian is present for the discussions.

2. Revision of the thesis statement. The thesis statement should be based on the questions raised by the student through his or her background reading.

3. Students schedule individual search time for Level Two searches. If possible, students should schedule with a classmate. Level Two searches are conducted with the assistance of the librarian. Searches may be conducted during class time or at other times during the school day, or after school.

Weeks Five to Eight

1. Interlibrary loan requests from Level One are received. Materials are reviewed with the assistance of either the librarian or the teacher. Books received through interlibrary loan are retained on reserve in the library. Printed articles received are given to the students.

2. Level Two searches are conducted and additional interlibrary loan requests are made.

3. Level Three information requests are made for those students who have received materials and can determine such requests.

(This time period might best be scheduled to include the weeks of winter vacation. The ten days to two weeks of winter break will allow for additional time to receive materials from interlibrary loan.)
Weeks Nine to Ten

1. Students conduct more extensive search of inhouse materials.

2. Students gather more extensive notes specific to the final thesis and final questions.

3. Final outline is written.

4. Rough draft of paper is written.

Week Eleven

1. Final draft of paper.

2. Students identify key resources used. Students should share this information with their classmates and with the librarian. Were there key sources which should be purchased for the high school library collection?

Week Twelve

1. Oral presentations.
QUESTION 6

WHICH OF THE STATISTICAL MEASUREMENT PROCEDURES TESTED WITHIN THE PILOT SHOULD BE USED FOR THE EVALUATION OF THE USE OF WILSEARCH, WILSONLINE AND INTERLIBRARY LOAN BY A LARGER STUDENT AUDIENCE?

The use of Wilsearch has great potential for a wider high school audience, and has potential for a number of different library related high school assignments. Wilsearch would be useful to classes which might be required to accomplish any of the following tasks:

1. Locate current legislation and court rulings from a given list of laws and legal issues.

2. Discuss the life and critical opinions of the works of an American or British author from a given list.

3. Examine in depth the life of an historical personality from American or world history.

4. Identify various pro and con arguments on a current social issue; attempt to locate recent and authoritative studies.

5. Discuss the history and current state of a specific international issue; include authoritative statements from the major leaders of the world concerning the issue.

These are statements which reflect current library research assignments at Carmel High School. In most cases, at least two classes of 30 students each are involved in addressing one of the five items given above. These classes could be established as a control group and a treatment group in order to further identify the potential uses of Wilsearch and Wilsonline for the high school student.
Questions which would be posed for a project involving wider use of Wilsearch would include:

1. Design the lesson plans and assignments which allow for effective use of Wilsearch in a variety of discipline areas for high school students. What are the special considerations for each assignment?

2. For each of those assignments, and the restructured pilot, can statistical information and professional observation help to answer these questions:

   a. Can important key sources be identified for purchase and future inhouse use through the high school library collection? How many of these key sources were located through the use of Wilsearch?

   b. To what extent do students use Wilsearch to locate information which is more in-depth and more authoritative than popular magazines and newspapers?

   c. To what extent will students qualify their evidence by citing specific authorities? Of what use is Wilsearch in locating additional information from these authorities?

   d. To what extent will students use critical opinions of book reviewers to justify the merits of information used? How do students use Wilsearch to help them locate critical reviews of literature?

   e. To what extent will the sources available through Wilsearch enable students to raise and answer additional questions beyond those raised through popular magazine and newspaper sources?

   f. To what extent will students be able to find recent information through the use of Wilsearch?

   g. To what extent will students be able to locate various opinions on a current social issue, both pro and con, through the use of Wilsearch?

Statistical data from the student searches, student notecards, and student generated products (papers or oral reports) can be examined to establish answers to the above questions.
1/29---1/31----------------INTRODUCTORY LECTURES AND DISCUSSIONS
SELECTING TOPIC

2/3---2/7-------------------PRELIMINARY BIBLIOGRAPHY (12) - FEB. 5 (10 PTS.)
BB SECTIONAL WEEK
LIBRARY: Hour 4 & 5

2/10---2/14-----------------NOTE CARD CHECK (20 PTS.) 25 MINIMUM - FEBRUARY 10
CONTINUE CRITICAL READING AND NOTETAKING
CLASS CHECKS (2 MINIMUM)

2/17---2/21-----------------NO SCHOOL FEBRUARY 17 -- PRESIDENT'S DAY
PRELIMINARY D.L. AND THESIS -- (N.G.) - FEBRUARY 18
CONTINUE CRITICAL READING AND NOTETAKING

2/24---2/28-----------------FINAL D.L. (20 PTS.) - FEBRUARY 24
END OF 4TH GRADING PERIOD - FEBRUARY 28
R.D. - FEBRUARY 28 (20 PTS.)

3/3---3/7-------------------REVISION OF ROUGH DRAFT
RESEARCH PAPER DUE (200 PTS.) - MARCH 7

3/10---3/14-----------------SPEECHES (50 PTS.)
CTBS TESTING -- MARCH 11-13

1. 7 SOURCE MINIMUM (ALL ARE FOOTNOTED)
   REQUIRED SOURCES: NEWSBANK, READER'S GUIDE, SIRS, N.Y. TIMES INDEX
   CHOICE: EDITORIAL,RESEARCH REPORT OR FACTS ON FILE
   TWO ADDITIONAL SOURCES
2. NOTE CARDS: 60 MINIMUM
3. IF POSSIBLE, RESEARCH PAPER SHOULD BE TYPED.
   7-10 PAGES (NOT INCLUDING TITLE, OUTLINE, FOOTNOTE, OR BIBLIOGRAPHY
   PAGES)
4. ENCYCLOPEDIAS ARE NOT CONSIDERED A SOURCE.
5. ALL DUE DATES ARE THE FINAL (LAST) DAY. YOU ARE ENCOURAGED TO TURN
   MATERIAL IN EARLY.
6. A RESEARCH PAPER IS REQUIRED FROM EACH STUDENT FOR SUCCESSFUL COMPLETION
   OF THE COURSE.
7. DUE DATE : MARCH 7 - LATE PAPERS WILL RECEIVE NO GRADE HIGHER THAN A "C."
APPENDIX B
HANDOUTS FOR INTRODUCING WILSEARCH
WHAT AN ELECTRONIC DATABASE HELPS US ACCOMPLISH

A COMPUTER HELPS US SORT THROUGH A HUGH AMOUNT OF INFORMATION.

THE COMPUTER MAY CONTAIN THE DATABASE WE SEARCH OR IT MAY SERVE AS THE DEVICE WE USE TO CONNECT TO AN EVEN LARGER DATABASE THROUGH THE USE OF TELEPHONE LINES. WHEN THIS CONNECTION IS MADE, WE ARE "ONLINE."

1. WE CAN SEARCH A COMBINATION OF INDEXES AT ONE TIME.
2. WE CAN SEARCH EXHAUSTIVELY.
3. WE CAN SEARCH SELECTIVELY.
4. WE CAN SEARCH SPECIFICALLY.
5. WE CAN SEARCH VERY RECENTLY.
6. EVENTUALLY, WE WILL BE ABLE TO SEARCH VERY RETROSPECTIVELY.
7. WE CAN LOOK BEYOND OUR OWN LIBRARY'S COLLECTION.
8. WE CAN LOOK EXPENSIVELY.
9. IF WE PLAN AND PRACTICE, WE CAN SEARCH EFFICIENTLY AND SAVE TIME AND MONEY.
10. IF WE PLAN AND LEARN, WE CAN SEARCH EFFECTIVELY AND FIND THE INFORMATION NECESSARY TO SOLVE MANY OF OUR PROBLEMS.
Steps to Conducting a "WilSearch"

1. **Conduct an initial search for material in your own collection.**
   Read and gain some background on your topic.

2. **Attempt to identify your topic in writing.**
   Identify important terms, events, and people.

3. **Convert your nouns which describe the ideas related to your topic into subject headings which are used by the index.**
   Verify your terms in *The Readers' Guide to Periodical Literature,* and other H. W. Wilson indexes which might be of use.

4. **Plan your WilSearch.** Using the terms you have verified,
   consider how they would be best combined to locate worthwhile information.
   
   A. Combining all possible synonyms
   B. Combining all associated terms
   C. Making a term cover other possible suffixes
   D. Use the term strictly as a subject heading
   E. Combine terms representing different objects
      in order to find information which deals with both objects
   F. Consider specific authors

5. Go "online" and conduct your search. Select from what is offered and printout your own bibliography.

6. **Make a record of your search by completing the log.**

7. **Review your printout and any new subject headings "WilSearch" has provided.**

8. **Determine if it is necessary or desirable to conduct another search.**

9. **Request materials from your printout through interlibrary loan.**

10. **Consider future searches based on materials you receive and read.**
Using WilSearch

What You See

The system should be on, including monitor, computer, and printer. Complete the following information on your "PLAN" sheet under "LOG": name, topic, date, log on time.

1. "FLASHING WilSearch"
2. (Main Menu)
3. Welcome to WilSearch
4. (Select Menu)
5. Enter your search request for
6. The terms you have requested are all on the screen
7. "OK TO BEGIN SEARCH?"
8. I am now using the telephone
9. Welcome to WilSearch
10. A chart of the search results
    | search | subject | found |
    | 1      | XXXXXXX | NNN   |
11. Total number of citations will show at bottom of screen; how many do you want?
12. From which citation?
13. I am transferring
14. Printer?
15. Enter name

What You Do

1. Hit any key to start
2. Hit "1" for WilSearch
3. Wait for loading
4. Select from 3-9 for periodical index. Select "A" for a new screen and searching two indexes. Select "1" to search book titles, subjects and authors.
5. Transfer your written search plan to the screen; the ↓ key moves the cursor.
6. Move the cursor to the bottom by striking the "END" key.
7. If your plan is correct strike "Y"; if you want to change any terms now, strike "N"
8. Wait for telephone connection
9. Wait
10. Record the results for each search on your "PLAN" in the "FOUND" column.
11. You may request up to 30 (hit return ↓ key)
12. Strike "1" and return
13. Let it download all citations while you write in on your log: the number of citations you are receiving.
14. Strike "Y"
15. Type in your full name
WHAT_YOU SEE

16. ENTER HEADING

17. PRINTER READY?

18. YOUR FIRST CITATION LISTING WILL APPEAR

19. ALONG WITH EACH NEW CITATION, "SUBJECT COVERED" WILL APPEAR TOO

20. AFTER ALL CITATIONS HAVE BEEN PRESENTED THE SCREEN WILL SHOW "SUBJECTS OF INTEREST TO YOU"

21. DO YOU WANT TO REVIEW YOUR SEARCH?

22. HIT ANY KEY TO RETURN TO MAIN MENU

WHAT_YOU_DO

16. TYPE IN YOUR TOPIC AND THE NUMBER OF YOUR SEARCH FOR THIS TOPIC: I.E. PLO II

17. CHECK PAPER TO SEE IT IS ALIGNED AND SNUG, STRIKE "Y"

18. IF YOU WANT TO CONSIDER THE CITATION AS A SOURCE, HIT "Y"; IF YOU DO NOT, HIT "N"

19. WATCH FOR NEW SUBJECT TERMS WHICH MIGHT BE USEFUL

20. RECORD THESE SUBJECTS ON THE BOTTOM OF YOUR "PLAN" FOLLOWING "SUBJECT HEADINGS RECOMMENDED..."

21. HIT "N" UNLESS THERE HAS BEEN A PROBLEM

22. STRIKE ANY KEY

RECORD ON YOUR "PLAN" SHEET YOUR LOG OF TIME.

COUNT THE TOTAL NUMBER OF CITATIONS PRINTED AND RECORD THIS NUMBER ON THE LINE GIVEN AFTER "TOTAL PRINTED" ON YOUR "PLAN" SHEET.

ANSWER THE FOLLOWING QUESTIONS ON YOUR LOG:

1. HOW MANY IMAGE SEARCHES HAVE YOU DONE PRIOR TO THIS ONE?

2. WERE THE TERMS YOU USED FOR THIS SEARCH VERIFIED A OR B?

THREE-HOLE PUNCH YOUR PLAN AND THE CARBON OF YOUR SEARCH, PLACE YOUR PLAN AND THE CARBON IN THE NOTEBOOK.

REVIEW THE ITEMS ON YOUR PRINTOUT TO DETERMINE:

1. THOSE TITLES YOU WANT TO REQUEST THROUGH INTERLIBRARY LOAN

2. THOSE ITEMS WHICH MIGHT BE AVAILABLE IN A LOCAL LIBRARY

3. A PLAN FOR A NEW SEARCH
APPENDIX C
STUDENT WORKSHEET FOR
TOPIC IDENTIFICATION &
SUBJECT HEADING VERIFICATION
STUDENT WORKSHEET  TOPIC IDENTIFICATION  NAME

Teacher __________________________  Course __________________________  Grade Level  __________  Date __________

Respond to as many of the following statements as possible.

A. State your topic. (You may give in your own words several terms which describe your topic, or you may write your thesis statement as it has developed to this point.)

B. Give the names of any people associated with your topic, either as subjects who are "personalities" or an individual whom you feel is an important author on your topic.

C. List the title of one book or the source of one magazine article you have found and read which seems to deal directly with your topic. State one interesting fact or idea you learned.

D. In addition to your thesis statement, describe what you would like to be able to state, discuss, or prove in your paper.

E. Write as many synonyms for the nouns you gave in response to statement "A" as you can.

Circle the three most important nouns or names you have written above.
### Subject Verification

**YOUR NOUNS:**

1. 

2. 

3. 

### Wilson Index and Volume Number

Verify your nouns by attempting to locate each one in the Wilson Index you select. List only those terms which appear in the index as a main subject heading or subheading.

<table>
<thead>
<tr>
<th>Main Subject Heading</th>
<th>Subheading</th>
<th>Total Citations</th>
<th>Possible Citations</th>
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</thead>
<tbody>
<tr>
<td>#1</td>
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<td>#3</td>
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Verify your nouns by attempting to locate each one in the Wilson Index you select. List only those terms which appear in the index as a main subject heading or subheading.

<table>
<thead>
<tr>
<th>MAIN SUBJECT HEADING</th>
<th>SUBHEADING</th>
<th>TOTAL CITATIONS</th>
<th>POSSIBLE CITATIONS</th>
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SUBJECT VERIFICATION

WILSON INDEX AND VOLUME NUMBER

Verify your nouns by attempting to locate each one in the Wilson index you select. List only those terms which appear in the index as a main subject heading or subheading.

<table>
<thead>
<tr>
<th>MAIN SUBJECT HEADING</th>
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<th>POSSIBLE CITATIONS</th>
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</tbody>
</table>
**DENT WORKSHEET PLAN AND LOG FOR SUBJECT WILSEARCH**

Enter your search request for: 1. ________________ 2. ________________

**Author/Name** XXXXXX (unless to be used as subject ________________)

**Title Words** XXXXXXXXXXX

**Subject Words**
1st: 
2nd: 
3rd: 

**Journal Name** XXXXXXXXXXX

**Organization** XXXXXXXXXXX

**Dewey Number** XXXXXXXXXXX

**Earliest Date** XXXXXXXXXXX

**Latest Date** XXXXXXXXXXX

#FOUND

**TOTAL FOUND:**

---

Remember these simple search combinations:

"ANY DOG CAT" = Articles on either dogs or cats.

"DOG:" = Articles on dogs, dog pounds, dog shows, dog food, etc.

"/DOG" = Articles which are listed under the subject heading "DOG."

"DOG" on line 1, "CAT" on line 2, "SHOW" on line 3 = only articles on "DOG AND CAT SHOWS."

**LOG**

Complete the information below for each Wilsearch you complete.

**NAME:** ___________________________ **Your Topic:** ______________________________

**Time of Wilsearch** ________________ **Time On** ________________ **Time Of** ________________

**Total Number of References Located** ______ **References Reviewed** ______ **Total Interned** ______

**How many Wilsearches have you done prior to this one?** ______ **Were the terms you used for this search verified?**

A) through the print indexes only? ______ OR B) from a previous Wilsearch? ______

**Subject headings recommended by Wilsearch as a result of this search:**

89
DENT WORKSHEET  PLAN AND LOG FOR SUBJECT WILSEARCH

ENTER YOUR SEARCH REQUEST FOR:  1. ________________________________  2. ________________________________

WILSON INDEX(ES) YOU WANT TO SEARCH

AUTHOR/NAME XXXXXXX (UNLESS TO BE USED AS SUBJECT ____________________________________)

TITLE WORDS XXXXXXXXXXXX

SUBJECT WORDS 1st: ___________________________________________________________________

2nd: ______________________________________________________________________________

3rd: ______________________________________________________________________________

JOURNAL NAME XXXXXXXXXXXX

ORGANIZATION XXXXXXXXXXX

DEWEY NUMBER XXXXXXXXXXX

EARLIEST DATE XXXXXXXXXXXX

LATEST DATE XXXXXXXXXXX

TOTAL FOUND: ________________________________________________________________________

REMEMBER THESE SIMPLE SEARCH COMBINATIONS

"ANY DOG CAT" = ARTICLES ON EITHER DOGS OR CATS.

"DOG:" = ARTICLES ON DOGS, DOG POUNDS, DOG SHOWS, DOG FOOD, ETC.

"/DOG" = ARTICLES WHICH ARE LISTED UNDER THE SUBJECT HEADING "DOG."

"DOG" ON LINE 1, "CAT" ON LINE 2, "SHOW" ON LINE 3 = ONLY ARTICLES ON "DOG AND CAT SHOWS."

LOG

COMPLETE THE INFORMATION BELOW FOR EACH WILSEARCH YOU COMPLETE.

NAME: ________________________________ Your topic: ________________________________

TIME OF WILSEARCH _____________________ TIME ON _____________________ TIME OFF ________________

TOTAL NUMBER OF REFERENCES LOCATED _____ REFERENCES REVIEWED _____ TOTAL PRINTED ______

MANY WILSEARCHES HAVE YOU DONE PRIOR TO THIS ONE? _____ WERE THE TERMS YOU USED FOR THIS

SEARCH VERIFIED A) THROUGH THE PRINT INDEXES ONLY? _____ OR B) FROM A PREVIOUS WILSEARCH? _____

SUBJECT HEADINGS RECOMMENDED BY WILSEARCH AS A RESULT OF THIS SEARCH:

91
### DENT WORKSHEET  PLAN AND LOG FOR SUBJECT WILSEARCH

**Enter your search request for:**

1. [ ] WILSON INDEX(ES) YOU WANT TO SEARCH

**Author/Name**

- [ ] XXXXXXX (UNLESS TO BE USED AS SUBJECT) #FOUND

**Title Words**

- [ ] XXXXXXXX

**Subject Words**

1ST:

2ND:

3RD:

**Journal Name**

- [ ] XXXXXXXXX

**Organization**

- [ ] XXXXXXXXX

**Dewey Number**

- [ ] XXXXXXXXX

**Earliest Date**

- [ ] XXXXXXXXX

**Latest Date**

- [ ] XXXXXXXXX

**TOTAL FOUND:**

- [ ]

**Remember these simple search combinations:***

- "ANY DOG CAT" = ARTICLES ON EITHER DOGS OR CATS.

- "DOG:" = ARTICLES ON DOGS, DOG POUNDS, DOG SHOWS, DOG FOOD, ETC.

- "/DOG" = ARTICLES WHICH ARE LISTED UNDER THE SUBJECT HEADING "DOG."

- "DOG" ON LINE 1, "CAT" ON LINE 2, "SHOW" ON LINE 3 = ONLY ARTICLES ON "DOG AND CAT SHOWS."

### LOG

**Complete the information below for each WILSEARCH you complete.**

**Your Name:**

- [ ]

**Your Topic:**

- [ ]

**Time of WILSEARCH**

- [ ] TIME ON  

**Time off**

- [ ]

**Total number of references located**

- [ ] References reviewed

**Total Printed**

- [ ]

**How many WILSEARCHES have you done prior to this one?**

- [ ]

**Were the terms you used for this search:**

- [ ] A) THROUGH THE PRINT INDEXES ONLY?

**OR B) FROM A PREVIOUS WILSEARCH**

- [ ]

**Subject headings recommended by WILSEARCH as a result of this search:**

- [ ]

93
APPENDIX D
STUDENT QUESTIONNAIRE
DIRECTIONS

1. Read through the entire questionnaire before answering any of the questions. You may answer the questions in any order you desire. There are no right or wrong answers. Truthful responses are most important. Please do not "make up" an answer just to give a response. If you don't know or feel you do not have an opinion, then don't respond.

2. Please give me your opinions and your ideas. Answer the questionnaire as an individual without the help of another student or teacher.

3. Your responses will be part of the total group reaction to the research paper and the use of Wilsonline and Wilsearch. Your responses will not have an effect on your grade for the term paper nor your grade for the class.

4. You will be given plenty of time to answer all questions. Please take the time to give each question some thought. Read over your responses and give some time for second thoughts. The more honest information you give us, the more helpful this project will be for students in the future.
What was your thesis statement or the major question you tried to answer in your paper?
For each of the given statements below, indicate if a statement is true or false in your case.

A. I had read materials on my topic before the paper was assigned.  
A. True  False

B. Before the paper was assigned for this class, I had written another paper or given a talk on the same topic I selected.  
B. True  False

C. I had talked with my friends or parents about this topic before the assignment was made in class.  
C. True  False

D. I saw a movie or television show about this topic before the assignment.  
D. True  False

E. I was sure there would be a great deal of material on my topic in the high school library.  
E. True  False

F. I was sure there would be a great deal of material on my topic in the public library.  
F. True  False

G. I was sure I could get material on my topic from home.  
G. True  False

H. I did not know much about my topic and thought this assignment would be a chance to read about something new to me.  
H. True  False
For each statement given below, indicate the amount of influence you feel that statement represents on your decision to select your topic.  

A. I had read materials on my topic before the paper was assigned.  

B. Before the paper was assigned for this class, I had written another paper or given a talk on the same topic I selected.  

C. I had talked with my friends or parents about this paper before the assignment was made in class.  

D. I saw a movie or television show about this topic before the assignment.  

E. I was sure there would be a great deal of material on my topic in the high school library.  

F. I was sure there would be a great deal of material on my topic in the public library.  

G. I was sure I could get material on my topic from home.  

H. I did not know much about my topic and thought this assignment would be a chance to read about something new to me.
For each statement given below, write as many questions as you can. If no questions come to your mind, write "none" in the space following the statement.

A. Examples of questions about my topic I knew the answer to before I started to locate materials for my paper are:

B. Examples of questions I had concerning my topic before I began to gather information for my paper, but were questions for which I did not know the answer are:

C. Examples of questions which came to my mind while I was doing the work for this paper, but were questions I had never thought about before are:

D. Examples of questions about my topic I would attempt to answer if I were to write an additional paper on my topic are:

E. Examples of questions concerning my topic for which I was never able to locate an answer are:
In your opinion, what was the most useful index you used to locate leads to information for your paper?

Tell why:

In your opinion, what were the two most useful materials (books, magazine articles, newspaper articles, etc.) you located for your paper? Describe how you located each item.

Item one:

Item two:
Indicate the degree of usefulness for each of the collections given below.

Place a check mark under one phrase for each collection:

<table>
<thead>
<tr>
<th>No Useful Materials Located Here</th>
<th>Some Useful Materials Located Here</th>
<th>A Great Deal of Useful Materials Located</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Carmel High Media Center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Carmel Public Library</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Indianapolis Marion County Public Library</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. IUPUI Library</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Indiana State Library of Indianapolis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. Home Library</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. Wilsearch or Wilsonline &amp; Inter-Library Loan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H. Other (Give Name):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

101
FOR EACH OF THE FOLLOWING LIBRARIES, INDICATE THE APPROXIMATE AMOUNT OF TIME YOU SPENT AT THAT LIBRARY TO GET MATERIALS FOR YOUR PAPER:

<table>
<thead>
<tr>
<th>Library</th>
<th>Zero: Did Not Go</th>
<th>One To Three Hours</th>
<th>Over Three Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARMEL PUBLIC LIBRARY</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>INDIANAPOLIS PUBLIC LIBRARY</td>
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<tr>
<td>IUPUI LIBRARY</td>
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<tr>
<td>HOME LIBRARY</td>
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<tr>
<td>OTHER LIBRARY (NAME)</td>
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</table>

102
In your opinion, what were the advantages of using WILSEARCH to help you locate information?

What were the disadvantages of using WILSEARCH to help you locate information?

What were the advantages of using WILSONLINE to help you locate information?

What were the disadvantages of using WILSONLINE to help you locate information?

If you did not use an online search which is represented in any of the above questions, write "did not use" following that question.
Complete the one statement which best applies to you.

I did not do an online (Wilsearch or Wilsonline) search because:

I did only one online search because:

I did more than one online search because:
Complete one of the following statements.

I would have done additional online searches if:

I felt that I did not need to do any additional online searches because:
Complete one of the following:

I did not request any materials from inter-library loan because:

I requested material through inter-library loan, and I determined which material I wanted to request based upon:
Answer each of the following questions with YES or NO and then explain your answer if asked to do so.

A. I think I could search on Wilsearch without help in order to find information for a future paper.
   A. YES NO
   Why or why not?

B. If I was assigned to do the paper today, I would change my topic.
   B. YES NO
   If yes, what would be your new topic and why would you change? If no, tell why you would not change.

C. I found enough information on my topic to complete the requirements of the assignment.
   C. YES NO
   Why or why not?

D. Did you tell any person (friends or parents) about using Wilsearch?
   D. YES NO
   Why or why not?
ANSWER EACH OF THE FOLLOWING QUESTIONS WITH YES OR NO AND THEN EXPLAIN YOUR ANSWER IF ASKED TO DO SO.

**E.** Do you think you will use an online search for information during the next two years?  
**CIRCLE ONE**  
**E.** **YES** **NO**  
WHY OR WHY NOT?

**F.** Using Wilsearch to locate information is too difficult and unsure.  
WHY DID YOU AGREE OR DISAGREE?

**G.** I would recommend that my friends learn how to use Wilsearch.  
WHY DID YOU AGREE OR DISAGREE?

**H.** Would you pay up to $2.00 for each time you used Wilsearch?  
**H.** **YES** **NO**  
WHY OR WHY NOT?

**I.** Would you pay up to $2.00 for each book or article you received from inter-library loan?  
**I.** **YES** **NO**  
WHY OR WHY NOT?
On the next page is a recent article on the Tylenol problem.

The article is from the February 24, 1986 issue of Newsweek.

Read the article and then determine the following:

A. What would be a good thesis statement for a paper related to this article?

B. What would be some additional questions you would want to attempt to answer in a paper on this problem?

C. Construct a search plan for your first online search with Wilsearch in order to find information on the thesis statement or questions you have written.

This is not a test. You will not be graded on your response.

Give your answers on the sheet of paper following the article.

Note: Article removed because of copyright restrictions.

A. THESIS STATEMENT:

B. ADDITIONAL QUESTIONS:

C. WILSEARCH SEARCH PLAN:
(COMPLETE ONLY THOSE LINES WHICH YOU FEEL ARE NECESSARY FOR YOUR FIRST SEARCH; A LIST OF POSSIBLE INDEXES IS ON NEXT PAGE)

ENTER YOUR SEARCH REQUEST FOR:
1. ____________________________ 2. ____________________________

WILSON INDEX(ES) YOU WANT TO SEARCH

AUTHOR/NAME: ___________________________________________

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