Chapter 5
Review of Literature

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Steps involved in a literature search

- The value of a literature review
- Types of sources
- Doing a manual search
- Doing a computer search
- Writing the literature review report (meta analysis)

Once conducting literature review is learned properly

- **You should**
  - Understand why it is of value
  - Learn the steps in conducting a literature review
  - Learn the kinds of information known as general reference
  - Learn the difference between a primary and a secondary source
  - Learn the phrase "search term"
  - Conduct both a manual and a computer search
  - Write a literature review
  - Learn what a meta-analysis is

The value of a literature review

- **Researcher conducts a literature review**
  - To locate what other work dealing with his/her study exists
  - To evaluate this work in terms of its relevance to the reseach question of interest

Types of sources

- **1. *General references:***

- The information researchers go first to sources like articles,monographs,books,other documents that are directly related: **indexes** or **abstracts**

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- Indexes: list author, title, place of publication of articles: *Current Index to Journals in Education*

- Abstracts: brief summary of various publications, also author, title, place of publication: *Psychological Abstracts*

- **2. Primary sources**
  - ☐ Authors communicate their findings directly to readers
  - ☐ Primary sources in education:

    Journal of Educational Research

    Journal of Research in Science Teaching

    articles reported in these journals are on a particular research study
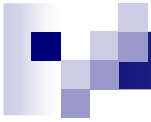
- **_3. Secondary Sources_**

  publications where works of others are described

  <u>ex</u>. Textbooks: illustrate various ideas and concepts

  <u>ex</u>.educational encyclopedias, research reviews, yearbooks

- **Researcher should first resort to**
  - general references
  - Then to primary/secondary sources

  - For quick overview:
    - Secondary sources
  - For detailed information:
    - Primary sources

Steps involved in a literature review

- Define research problem clearly
- Consult relevant secondary sources
- Select 1 or 2 general references and peruse them
- Formulate search terms(key words) pertenant to the problem
- Search general references for primary sources
- Read primary sources

Define research problem clearly

- Avoid general questions like:
  - "What sorts of teaching methods work well in the classroom?"
  - "How can a principal be a more effective leader?"
- Narrow down the question:
  - "Is discussion more effective than audio-visual presentations in motivating students to learn social studies concepts?"
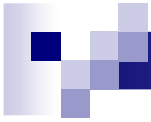
FOCUS SHOULD BE ON A SPECIFIC ISSUE

Consult relevant secondary sources

- Once research question is stated:
  - Browse through secondary sources
  - To get some idea on what is already known about the problem, and leads to revising or reformulating the statement
- Secondary sources:
  - *Encyclopedia of educational research*
  - *Handbook of research on teaching*
  - *National society for the study of education yearbooks*
  - *Review of educational research*
  - *Review of research in education*
  - *Subject guide to books in print*
  - *...*

- *Handbook of reading research*
- *Handbook of research on curriculum*
- *Handbook of research on educational administration*
- *Handbook of research on mathematical thinking and learning*
- *Handbook of research on school supervision*
- *Handbook of research on teacher education*
- *Handbook of research on the education of young children*
- *Handbook of research on the teaching of English*

& many more

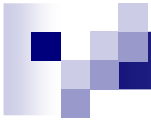# SELECT THE APPROPRIATE GENERAL REFERENCES

- Secondary sources enable researcher to get a clear view of what to investigate.

- Researcher should at this point overview the problem statement (research question)
  to see if it needs to be rewritten

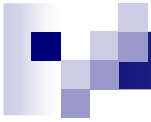 to see if it needs more focusing

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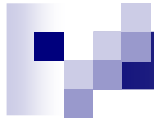
Commonly used general references

- *Education Index*
- *Current Index to Journals in Education*
- *Readers' Guide to periodical Literature*
- *Social Science Citation Index (also shows articles/ authors cited thus leading to many more sources)*
- *Physchological Abstracts*

- *Resources in Education*
- *Current Index to Journals in Education*
- *ERIC Online*
- *Sociological Abstracts*
- *Exceptional Child Education Resources*

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- There are times when dissertations and theses may be available for review:
- *Dissertation Abstracts International*
- *Keyword Index*
- *Dissertation Abstracts Ondisc*
- *(can be obtained via* Council of Higher Education, Turkey)
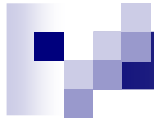
Formulate Search Terms

Words or phrases to locate primary sources

Such words are also called <u>descriptors</u>, the most significant terms in a study

<u>Ex.:</u> "Do students taught by a teaching team learn more than students taught by an individual teacher?"

The descriptor is: teaching team

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- Synonymous expressions should be sought like, *team teaching, joint teaching, cooperative teaching*
- Researcher should consult general reference work to find articles listed under these descriptors

Obtain primary sources
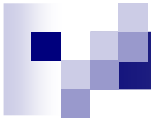
- Professional Journals

  publish reports of research

- Reports

  Most research findings are first published as reports, updated and are not copy-righted
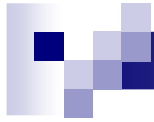
Locating and reading primary sources

- In journal articles and reports
- After compiling all journal articles, the researcher can begin the reviewing process
- How to read the article: (suggestions)
- Read the summary or abstract first

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- Record the bibliograhic data on a note card

- Take notes on the cards

- Be brief in taking notes but do not exclude the significant points

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Format of research articles:

- Abstract
- Introduction that presents the research problem, and reviews other related studies
- The objectives of the study or the hypothesis to be tested
- Description of the research procedures including subjects studied, research design, measuring instruments used
- Results or findings of the study
- Conclusions of the researcher

A good summary of a journal articles should contain:

- Problem being addressed
- Purpose of the study
- Hpothesis of the study(if any)
- Methodology the researcher used
- Description of subjects involved
- Results
- The conclusion
- Particular strengths, weaknesses, limitations of the study

DOING A COMPUTER SEARCH

- **HAS MANY ADVANTAGES:**
- **Fast, easily accessible, more than one descriptor can be searched at the same time, printout of search can be obtained as well**

However points to pay attention to while conducting computer-based research:

- Define the problem as precisely as possible

  "how effective are questioning techniques?" (too broad a statement)

  "what sorts of questioning techniques help studnets understand historical concepts more effectively?" (problem is defined)...

- Decide on the extent of the search

Researcher should figure out the number of resources to attain

For a master's thesis 30-40 articles could be reviewed

For a dissertation 100 or more articles could be resorted to

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- Decide on the database:
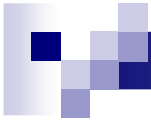- ERIC database is the best involving educational topics

RESEARCHING THE WORLD WIDE WEB

- http://galaxy.einet.net
- http://www.go.com
- http://www.hotbot.com
- http://www.looksmart.com
- http://magellan.excite.com
- http://dmoz.org
- http://webcrawler.com
- http://www.northernlight.com
- http://www.google.com

Advantages of searching on the world wide web

- Currency (Resent research)
- Access to a wide variety of materials
- Varied formats
- Immediacy (Getting results quickly)

Disadvantages of searching on the world wide web

- Disorganization
- Time consuming
- Lack of credibility (sometimes)
- Uncertain reliability
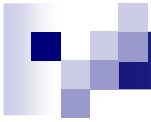- Ethical violations
- Undue reliance

Tips to get the best search results

- Use the most unique key word you can think of
- Make it a multistep process
- Narrow the field by using previous results
- Look for your key word in the Web page title
- Find out if case counts (*Italics* or *CAPS*)
- Check your spelling

Literature Review Format

- **1. Introduction** (*briefly describe the nature of the research problem and state the research question*)

- ***2.* The body** *what others have found about the research problem; related studies are grouped together; major studies in detail, less significant ones in a line or two; similar results can be reported in a single sentence followed by for ex.* (Adams,1976; Brown, 1980; Davis, 1985).

- **3. Summary** ties together the main threads revealed

- **4**. Any **conclusions** researcher feels is justified by the literature should be included

- See > Literature Review Document

META ANALYSIS

- **Literature review**
  - ☐ mentions works of individuals
  - ☐ Depends on the judgment of the reviewer

  To replace the subjectivity, in **meta analysis** *results are described statistically through the calculation of* **effect sizes** *and* **correlation coefficients**

  Literature review should include individual studies as well as meta analysis.

THANKS FOR LISTENING!