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Afghanistan Higher Education Project

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BASICS OF ACADEMIC RESEARCH

PARTICIPANT MANUAL

UMass-Center for International Education
Afghanistan Higher Education Project
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TABLE OF CONTENTS

TITLE		PAGE
Introduction		**3**
Session One:	**Basics of Academic Research**	**5**
Academic Research		6
Types of Academic Research		9
Ethical Issues		12
Characteristics & Skills of a Good Researcher		15
Session Two:	**Problem Identification**	**18**
Identifying a Research Issue		19
Defining the Issue		22
Posing a Research Question		24
Literature Review		27
Session Three:	**Building Arguments**	**32**
Building Argument / Thesis Statement / Hypothesis		33
Citing Academic Sources		36
Support a Research Argument		39
Session Four:	**Research Methods**	**42**
Introduction to Methods of Research		43
Quantitative Method		45
Qualitative Method		48
Mixed Method		51
Data Collection		54
Sampling		59
Session Five:	**Research Findings**	**63**
Drawing Conclusions		64

Predictions 67

Policy Options/ Recommendations/ Suggestions 69

Session Six: References & Abstract 72

References / Bibliography / Works Cited 73

Abstract 77

Appendix 80

INTRODUCTION

THE BASICS OF ACADEMIC RESEARCH

Learning Objective: To understand the necessary elements of basic academic research

With so many sources of information online, one might ask, "Why conduct academic research?" The answer is simple: academic research is done by scholars for other scholars to expand their knowledge in a particular field of study. The topics and issues that an academic may wish to research will be different from that of a businessman or policy maker. In many cases, it may even be that academic research happens purely for the sake of research itself. In addition to research for purely educational purposes, academic research is vital for the economic and social development of a society. Through academic research, present and future generations engage in critical writing, analysis, and dialogue about issues that can transform the economic and social contours of society.

Academic research is particularly important in Afghanistan. Many years of war have destroyed libraries and schools, and left much of the population with significantly diminished access to education in comparison to neighboring countries. And as a result of different political regimes' attitudes towards education, many academic intellectuals and students fled to different countries. This leaves Afghanistan in the somewhat unique situation of having less access to both scholarly information, and individuals to promote teaching, learning, and research. However, it also brings new possible prospects for research, and with technological advances there are now greater opportunities for professors to conduct research online, collect their own data, create their own informed arguments, and engage with peer and global scholars through academic writing.

The purpose of this "Basics of Academic Research Module" is to provide all professors both young and old the basic elements of academic research. It is hoped that this module will be a tool to assist them with promotion within their institutions, but also contribute to the Afghan academic community. Finally, this module is also a tool to teach students critical research skills that they will need to carry on scholarly work for future generations. It should be noted that an academic research course generally takes at least 6 weeks to a semester. This is a training outline that provides information on different elements of academic research to be delivered once a week over a six week period so that can complete their homework.

GENERAL SESSION ACTIVITY PATTERN

The pattern of sessions follows the learning-centered approach. The general flow of ideas is as follows:

1) **Pre-Reading Discussion:** Each session begins with the discussion of major questions regarding the main themes of each session. Through this dialogue one is expected to learn, listen to others, and reflect on their own and others' ideas. participant

2) **Reading:** After the pre-reading discussion Activity, you will read about the session topic. The reading is sometimes descriptive and in other cases bulleted points about important elements of academic research. The readings are intentionally short and direct, so that they can be read in class and if needed discussed by the group for further clarification.

3) **Post-Reading Activity:** The post-reading activity involves answering the same questions that were discussed by the group and also addressed in the reading. This is based on the practice that concepts are reinforced and integrated into a learning frame through writing.

4) **In-Class Practice:** The in-class practice provides the opportunity for you to work on the application of the concepts presented in the reading. Each In-Class Practice is different; examples include case studies, debates, argumentation and sampling exercises to name a few. Most involve group work, but a few are done individually.

5) Homework: As a reflective conclusion for each session, you are requested to complete a homework activity. Each activity covers a section that leads to the creation of a research paper. By the end of the course, you should have the basic knowledge to create your first academic research paper.

Session 1: Introduction to Academic Research

SESSION 1 AGENDA

Pre-Test	(15 Minutes)
Introduction to Academic Research	(75 Minutes)
Break	(15 Minutes)
Types of Academic Research	(75 Minutes)
Break	(15 Minutes)
Ethical Issues in Academic Research	(75 Minutes)
Break	(15 Minutes)
Characteristics and Skills of a Good Researcher	(75 Minutes)
Homework	(15 Minutes)

TOTAL TIME: 6.25 HOURS

ACTIVITY 1.1
ACADEMIC RESEARCH

Learning Objective: will introduce themselves and understand the purpose of Academic Research

Materials: Participant Manual

PRE-READING GROUP DISCUSSIONS

In groups of four, discuss the following questions:

- What is academic research?
- Why is it important?
- What is the purpose of academic research?

READING PASSAGE

Research means to study something methodically in order to discover or uncover facts on a particular issue. The studied facts can be of a historical, legal, cultural, philosophical, or scientific nature. Because different perspectives and assumptions can be presented with any sets of facts, the researcher develops an argument to guide the fact-finding work. As more facts are uncovered, he or she will accept or reject the argument that was created. The argument is the statement or question that guides decisions about the types of data to be collected. As part of this module, will learn to create an effective argument that is called a thesis or hypothesis depending on the academic field of study.

There are many purposes for conducting academic research, and the intention affects the type and method used. A broad purpose of academic research is to discover, interpret and develop systems for the advancement of human knowledge. In some schools of thought, this is called "pure" research. In doing pure research, the researcher develops the ability to investigate, think critically, analyze and synthesize information. The purpose of this type of research is often seen as being "research for the sake of research itself".

A second purpose of research is "applied research". Unlike pure research, this type of research is for implementation of a change or a solution to a social, economic, political or scientific problem. An example of this type of research might be a study that concludes that Afghan students are memorizing rather than learning new information. After the research study, the research recommendation could be that Afghan universities should implement problem based learning methods so that students will develop critical thinking and practical application skills. As a result of this study, the Ministry of Higher Education (MoHE) and university leadership may undertake efforts to create new classes and infuse new types of learning activities into university curriculum.

In Afghanistan, research plays a major role in professors' academic promotion. Both applied and pure researches are acceptable methods for academic promotional purposes. However, the academic research committee of the university and the Ministry of Higher Education should be consulted for the approval of research project to be conducted by university professors.

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved? Reading critically is an important aspect of research.

- What is academic research?

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- Why is it important?

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- What is the main purpose of academic research?

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IN-CLASS PRACTICE **APPLIED VS. PURE RESEARCH**

In pairs, read the scenario below and identify pure research and applied research. Then, write a similar example of pure and applied research in your field of study in the empty box below and share it with another pair. Also, in pairs discuss which type of research you are interested in conducting; pure or applied.

One researcher conducts research to determine if there are any health benefits to humans when they drink green tea, and discovers that when drinking green tea stress levels appear to decrease. Another researcher conducts research to determine exactly what effect green tea has on the body, and how it can be used to lower stress levels in individuals. The second researcher utilizes the former researcher's findings as supportive evidence.

YOUR SCENARIO:

ACTIVITY 1.2
TYPES OF ACADEMIC RESEARCH

Learning Objective: will understand different types of research used in the academic fields

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of two or more, discuss the following questions:

- Are there different types of academic research? If so, name them.
- What is the difference between descriptive and explanatory research?
- From your perspective, what types of research are most relevant to Afghanistan's needs?

READING PASSAGE

There are many different types of academic research, but for the purpose of this module, research can be grouped into three major groups: exploratory, descriptive, and explanatory. Exploratory research focuses on topics or issues about which little in known. A common application of this type of research is to probe into existing problems in organizations or institutions. The researcher tries to uncover the issues in order to make corrective recommendations to leadership. Because often little has been written about the issue, the research is somewhat less structured and less dependent on literature reviews than descriptive or explanatory research.

On the other hand, descriptive research is the search for facts about an already existing field, topic, or entity. This research can be of a quantitative or qualitative nature. Descriptive research is sometimes referred to as statistical research. The main purpose of this type of research is to describe data and characteristics of what is being studied. The idea behind this type of research is to find averages and other statistical calculations that support the hypothesis that is being presented. Although this type of research is often very accurate, it is does not always identify the causes of a problem. Descriptive research often uses data collection methods such as surveys and probability sampling.

Explanatory research differs from the exploratory and descriptive research. It seeks not only to describe a problem or phenomenon, but also examines relationships between two or more elements in the problem through tests. Explanatory research relies heavily on quantitative data in order to make predictions and is utilized largely in natural sciences fields.

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- Are there different types of academic research? If so, name them.

- What is the difference between descriptive and explanatory research?

- From your perspective, what types of research are most relevant to Afghanistan's needs?

IN-CLASS PRACTICE **TYPES OF ACADEMIC RESEARCH**

In groups of three, conduct online research and find two to three additional points about the types of research listed below. You will write and present a short summary of the different types of research approaches to the class. As each group presents their short summary, take notes on the lines below.

1. Pure Research

2. Applied Research

3. Descriptive Research

4. Explanatory Research

5. Exploratory Research

ACTIVITY 1.3
ETHICAL ISSUES

Learning Objective: will understand the ethical implications of conducting academic research

Materials: Participant Manual

PowerPoint Presentation

PRE-READING GROUP DISCUSSION

In groups of two or more, discuss the following questions:

- What are ethical issues to consider when conducting academic research?
- What is the difference between subjective and objective research?
- Why does research have to be accurate and truthful?

READING PASSAGE / POWER POINT

¬ Data Organization

A true academic researcher must follow ethical and moral guidelines in order for research to have validity in the field. From the onset, all presented data must be accurate and verifiable, and in order to ensure this the researcher must keep all original documents and raw data in an organized fashion. None of the data should be destroyed or lost for a minimum of five years from the publication of the research. Though it is true that even the best of researchers can make errors in data and analysis, the researcher should not intentionally ignore, skew, or misrepresent the actual data.

¬ Consent Of The Subject

Conducting research about a person or persons without obtaining consent is considered unethical. The researcher should explain the purpose and goals of research to the persons who will be subjects in the research. Only then s/he can ask for their consent and cooperation. If the researcher intentionally lies or makes false claims about the intention of the study, the research may be considered invalid at a later date. In addition, the researcher should be careful that the study does not harm the person(s) or interfere with their personal or professional lives.

¬ Confidentiality

Generally, it is unethical to reveal the identity of the person or persons that provide information for the study unless they have given their written consent. If photos are taken, waivers must be obtained from any person whose pictures have been used in the published product.

¬ Personal Bias

The researcher should always be objective when collecting data, interviewing people, or supporting the research argument in order to maintain validity. To be objective means to document all data and facts that will support or reject the argument of the research. For example, if the researcher conducts 30 surveys and finds that 10 of them do not support the argument, s/he should state this information in the research. If the researcher decides to alter, hide, or omit these findings, s/he is acting subjectively. This results in invalid research. Therefore, subjective behavior in research is showing personal bias towards the outcome of the findings. This must be avoided.

¬ Authorship

Another area of ethical responsibility lies in authorship. Often academic research involves a co-author or authors. All authors should give permission to have their names published and be made aware that their information is being used. In no case can one author place her or his name only on the publication if s/he used significant materials from another person.

¬ Plagiarism

The author needs to avoid plagiarism at all costs. It is important to understand the definition of plagiarism or the "intentional representation of another person's words, thoughts, or ideas as one's own." Essentially, all "borrowed" ideas or material must be cited and credited. Listing references at the end of a paper is often not enough for a reader to find the actual source. To avoid this situation, researchers must carefully write down all sources when taking notes from books or articles. When note taking they should paraphrase the authors' words and not use them directly. If they are used directly, they should be used with quotation marks. Having an advisor reviewing all work as it is created is essential to avoiding plagiarism. During this course, you will learn more about how to use references and citations correctly.

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- What are ethical issues to consider when conducting academic research?

- What is plagiarism?

- How can an academic researcher maintain ethical behavior?

IN-CLASS PRACTICE "THE MINISTER"

In pairs, read the scenario below and discuss the follow-up questions.

An Afghan university M.A. candidate is currently working as a minister. He is very busy. He would like to spend more time working on his research, but his civic responsibilities keep increasing. He is unable to complete his research. However, he has a nephew who just arrived from abroad where he completed his Master's degree. The minister decides to ask his nephew to write large sections of the research project. When the project is finished, he does not include his nephew's name. He presents the project as his absolute work.

- Should he be qualified for a M.A.? Why or why not?
- What mechanism should the Afghan Ministry of Higher Education have in place to ensure that incidents like this do not occur?
- In the current Afghan environment, do the professors have the right to reject the minister's work? Why or why not?

ACTIVITY 1.4
CHARACTERISTICS & SKILLS OF A GOOD RESEARCHER

Learning Objective: will understand the qualities and characteristics of a good researcher

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of two, discuss the following questions:

- What characteristics should a good researcher have?
- What skills are needed to be a good researcher?
- What characteristics and skills do you have that will make you a good researcher?

READING PASSAGE

There are differing opinions on the qualities of a good academic researcher. The stereotype is that a researcher should be of a high academic standing and have solid expertise in the academic field of study. The researcher should also have an analytical mind, be detail-orientated, and systematic. However, with the advent of the Internet and so many social networking resources, the characteristics of an academic researcher are changing. Today's researcher, in addition to being able to locate, read, and analyze detailed information, must have good communication and people skills. Qualitative research involves conducting interviews, surveys, and questionnaires, so speaking clearly and listening carefully are important. The researcher must also be able to "think on his or her feet" in order to probe questions more deeply and interpret oral information that is being given. In addition to these communication skills, today's researcher should have high visual and computer skills in order to read and organize data in a meaningful way for the reader. Data should be clearly displayed on various types of charts and graphs that magnify the information being presented.

Apart from these skills, a good researcher has to also have the characteristics of curiosity and commitment to finding the answers. Academic research is time consuming and demanding. In order to be successful, the researcher must be able to set up a systematic procedure that will carry her or him to the end of the research. This takes an enormous amount of patience and determination. There are many research projects left unfinished and sitting on a table or shelf somewhere. To be successful, you will need to cultivate all of the skills and qualities of a successful researcher.

POST-READING ACTIVITY

In writing, please answer the following questions in your own words. After this, exchange your book with another participant to critically comment on their answers. Are their answers clear? Do you agree with their answer? What is missing in their answers? How could their answers be improved?

- What characteristics should a good researcher have?

- What skills are needed to be a good researcher?

- What characteristics and skills do you have that will make you a good researcher?

RESEARCH DEBATE: STUDENTS VS. PROFESSORS

Your class will be divided into two groups to argue opposite answers to the following debate question. These teams will meet for 15 minutes to create major points for their argument. Each side gets 5 minutes to present their major points, and each side will have 5 minutes to make a rebuttal argument. When the debate is finished, the entire class will choose the strongest argument and note it on the "Outstanding Examples" chart.

Should both students and professors be able to conduct academic research in their field?

Why or why not?

HOMEWORK 1: IDEAS FOR MY RESEARCH PROJECT

Type no more than one page double-spaced to describe the type of research project that is interesting to you. Consider the following questions:

- Are you interested in applied or pure research?
- Would your research be exploratory, descriptive, or explanatory?
- What would the purpose of your research be?
- What ethical or moral issues may you encounter while conducting your research?

This homework will function as an aid as you begin the first draft of their research proposal.

Reading Assignment: Tulsa University Ethical Guidelines (Appendix 2)

Session 2: Problem Identification

AGENDA

Identifying a Research Issue	(75 Minutes)
Break	(15 Minutes)
Introducing the Research Issue	(75 Minutes)
Break	(15 Minutes)
Posing a Research Question	(75 Minutes)
Break	(15 Minutes)
Literature Review	(75 Minutes)
Homework	(15 Minutes)

TOTAL TIME: 6 HOURS

ACTIVITY 2.1
IDENTIFYING A RESEARCH ISSUE

Learning Objective: will understand how to clarify their research issue

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions:

- What is a major issue or problem at your university or your field that affects the quality of education?
- Do you think that the issue or problem could be a research project? Why or why not? Would you use pure or applied research?
- What type of research method would best address the problem?

READING PASSAGE

The first step in academic research is problem identification. The value of your research depends on the topic that you choose to explore or research. To ensure a valuable and interesting topic for your audience, the area of study should include the following:

- The researcher should be interested in the topic.
- Time should be considered.
- The research should be feasible considering resources.
- The area of study should be according to the researcher's area of expertise (for example, a lawyer should not conduct a medical research project).
- The research project should be clear.
- The research should be narrowed down.
- The research project should not be a repetition of previous research unless the following circumstances apply: 1) the time is different; 2) it is conducted in different locations; and 3) the previous research had not been able to reach a conclusion.

It is also important to keep in mind technical aspects when identifying your area of study. The researcher should keep in mind the following:

- The research topic should be short and concise.
- The researcher must use simple and clear terminologies.
- Any technical terminology must be defined clearly.
- The researcher must avoid unnecessary abbreviations.

- The researcher must avoid any culturally sensitive terms.

Keeping these points in mind, a researcher must ask the following questions to get started:

- What is the issue I want to address? Have an introduction of the issue that can capture the readers' attention so they can easily understand what you are trying to do.
- Why is it necessary and important to address the issue? Justify the research problem using scholarly literature, workplace or personal experience.
- How will my study build upon and then expand the existing literature of the issue? It is useful to find deficiencies in the literature of the area you want to explore.
- Who will benefit from my study, and how? The researcher should reflect upon and indicate the benefits of the study to the researcher, , research community, and society at large. This will help professors rethink who is the potential audience of the study and what are the benefits for his or her audience.

  http://journey-master.blogspot.com/2011/09/how-to-identify-research-problem.html

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- What is a major issue or problem at your university that affects the quality of education?

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- Do you think that the issue or problem could be a research project? Why or why not? Would you use pure or applied research?

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- What kind of research method would best address the problem?

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IN-CLASS PRACTICE **"WHAT IS THE RESEARCH ISSUE?"**

Individually take time to identify a major issue or problem that you are interested in researching in your academic field. Use the following questions for guidance. Finally, share your identified issue or problem with peers in your field for feedback. What advice or information can they give you? Make appropriate changes based on their feedback.

- What is the issue/problem you want to study?

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- What is the concern being addressed "behind" this study?

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- Who will benefit or be the audience for this research project?

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- Why do you want to undertake this study?

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- Why is this study important to the scholarly community?

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ACTIVITY 2.2
DEFINING THE ISSUE

Learning Objective: will understand how to define the research issue

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions:

- Why should a researcher introduce the issue of research?
- What should an introduction to a research issue include?
- How long and detailed should an introduction be?

READING PASSAGE

After identification of a research issue or problem, researchers must clearly define the issue. This is usually done in the introduction or background section of the paper. Many people actually write this section when they are nearing the end of their writing, as it must be very clear, concise, and short. The introduction may speak broadly about the research topic, but then narrow down to the actual thesis. In the introduction, the author is trying to inform the reader about why s/he is conducting the research and why it is important to the particular academic field. The introduction should let the reader know what really motivated the author to do the research. It should be catchy and interesting and invite the reader to read more.

In addition, in the introduction the author should provide background for the research. In the background section, the researcher identifies the history and the nature of the problem. This section should also identify the root of the problem being studied and distinguish the scope and nature of the problem. After the scope of the problem has been discussed the author provides an overview of existing studies that have attempted to address the problem. It is here that the researcher refers to existing literature about the problem noting the gaps that exist and need to be filled.

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

participant

- Why should a researcher clearly define the research issue?

- What should an introduction to a research issue include?

- How long and detailed should it be?

IN-CLASS PRACTICE **"TELL ME ABOUT YOUR RESEARCH ISSUE"**

Divide into pairs, and describe your research issue to your partner. This is a talking exercise to help you become clearer about the most important historical details of the research issue. Emphasize the most important historical facts that have contributed to this issue. While each of you are talking, the other should be taking notes on the most interesting and the most important facts about the issue for feedback. When it is your turn to share your topic, be sure to address the following points:

- Clear definition of the issue.
- General historical background of the problem.
- Necessity for research on the issue/problem.

This will prepare you for writing the introductory section of your research project.

ACTIVITY 2.3
POSING A RESEARCH QUESTION

Learning Objective: will understand how to pose a good research question

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions:

- What is a research question?
- Can any question be a research question? Why or why not?
- What are the criteria for a good research question?

READING PASSAGE

The following points should be considered for posing a good research question:

- The research question should be clear. When it is posed to a group or audience, all should understand it without any further questions in mind.
- The research question should be feasible.
- The research question should avoid any ethical and cultural sensitivity. It should solely represent the values of the researcher rather than being objective in the field of study.
- The research question should not pose philosophical debate. It should be testable.
- The research should be an open-ended question.

A research topic is the broad subject matter being addressed, for example, causes of pollution. A research problem is narrower and looks closely at a specific issue within the topic. An example of this could be "Wood Stove Usage in Kabul". It is one of the causes of pollution, but is more limited and focused in one specific location.

When determining the final research problem, the researcher needs to be clear about the purpose of the research. For example, in this case, the researcher will want to conduct the research in order to show a linkage between wood stove usage and pollution in Kabul. Who is the audience? Will this research be primarily for academic promotion or contribution to the field, or is this project to be shared with different ministries to create policy options. The researcher should be clear as to who the audience is.

Next, the researcher will take the research problem and create a concrete question that s/he would like to pose, which in this example could be, "How has wood stove usage increased pollution in Kabul since 2002?" While this is a broad research question, it acts as a starting point for the researcher who will narrow it down further after the literature review. S/he may also change the title when the research is finished.

After the research question has been developed, the researcher can apply the SMART (Specific, Measureable, Attainable, Realistic and Time-bound) analysis to check if it is a feasible research question. The most important characteristic of a good research question is that it is simple, but should also be specific. In this case, the question is specifically limited to Kabul. It should also be measureable. Pollution samples in Kabul can be measured, as well as data regarding the number of stoves bought and sold can be found. The third characteristic is that the research is achievable. This research can be conducted in Kabul, though if security problems increase, the research may need to be modified. Finally, the research questions should be realistic and able to be conducted within a realistic time frame.

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

participant

- What is a research question?

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- Can any question be a research question? Why or why not?

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- What are the criteria of a good research question?

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IN-CLASS PRACTICE: RESEARCH QUESTION

Develop three research questions applicable to your field of study and your research problem. Make sure that the questions meet the SMART criteria. Then, present your questions to the class for critical feedback. Finally, select one that you would like to keep as your research question.

This In-Class Practice will help you to start working on your research question.

Question # 1:

Question # 2:

Question # 3:

ACTIVITY 2.4
LITERATURE REVIEW

Learning Objective: will understand the importance of a Literature Review

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions:

- What is a literature review?
- Why is it important in an academic research project?
- Is academic research complete without a literature review? Why or why not?

READING PASSAGE

Early on in research project identification, the researcher should conduct a literature review. The literature review is important for a number of reasons. First, the researcher should be aware of how much and what kind of research has already been conducted on this topic. If it is a topic that has been well researched, s/he may need to change the research problem or question. The researcher also needs to locate gaps in existing research that need to be filled. S/he will want to ensure that the work is not duplicative, but builds on existing knowledge in the field. In addition, the researcher will want to be able to build on current research with an added perspective or new application. Conducting a literature review also enables the researcher to determine if the problem has been understudied and by whom. Finally, through a literature review, the researcher will have the opportunity to become clearer as to what exactly s/he wants to research. In order to achieve this, the researcher will need to locate at least three to seven core research studies to advance her/his argument for additional research.

The basic process of conducting a literature review will include the following steps:

1. Look at an example of a literature review that is conducted by another researcher. (See appendix)
2. Collect at least five related literature sources; scholarly recognized books, journal articles, and other documents that are relevant to your question.
3. Screen for the most recent literature.
4. Study the literature; analyze the arguments for strengths and weaknesses in order to clarify if they are different from your research project.

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- What is a literature review?

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- Why is it important in an academic research project?

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- Is academic research complete without a literature review? Why or why not?

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IN-CLASS PRACTICE: FINDING LITERATURE REVIEW SOURCES

In groups of related academic fields of study, identify the most prominent sources in your field. List them below; you will need them for your own literature review.

- In Afghanistan, what are the major sources of academic scholarly publications? Please list them.

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- In your field, are most of the sources online or paper based at the libraries? In either case list them below.

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- How can you distinguish credible from non-credible sources?

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HOMEWORK:

Using the Skeleton of an Academic Research Paper PowerPoint presentation (Appendix 6), review the steps of research that you have learned until now. Your assignment is to use this structure to develop the steps of your own research project.

Identified Issue or Problem

Growing Hostility Among Male Youths in Afghanistan

Background

Hostility can emerge in a society as an expression of hopelessness and societal instability. This is a change that most war-torn or poor countries struggle with.

Narrowing it Down to Afghanistan

Afghanistan is a post-conflict country. Hostility is one of the major issues that youths are struggling with in their communities.

Research Question

What are two major reasons for growing hostility among male youths between the ages of 15 and 21 in Afghanistan?

Literature Review

There are several scholarly sources written on this specific issue in Afghanistan. Ahmad, a social scientist stated in his research paper that hostility was a major challenge that Afghanistan will face in the future. His research was completed 10 years ago. Although he brought up several good points, he failed to clarify exactly what type of hostility would increase. Would it increase among adults, males, females, or children?

This is a fictional example in which it is clear that the researcher has reviewed a research paper that has been conducted before. S/he presents the research's weakness in order to identify a gap in the literature and to justify the need for further study in the field.

YOUR MODEL:

The purpose of this homework is for you to write the introductory part of your research proposal and include your literature review. Remember to state your research issue or problem. Start your introduction with background on the issue and narrow it down to your specific research study. State your research question and finally conduct a brief literature review. You have the choice to use the model below or to type your own draft, covering all the steps of a complete research introduction and literature review.

Identified Issue or Problem

Background

Narrowing it Down to Afghanistan

Research Question

Literature Review

Session 3: Building Arguments

AGENDA

Building Argument/ Thesis Statement/ Hypothesis	(75 Minutes)
Break	(15 Minutes)
Using Academic Sources	(75 Minutes)
Break	(15 Minutes)
Support Research Argument	(75 Minutes)
Homework	(15 Minutes)

TOTAL TIME: 4.5 HOURS

ACTIVITY 3.1

BUILDING ARGUMENT/ THESIS STATEMENT/ HYPOTHESIS

Learning Objective: will understand how to create an argument or hypothesis

Materials: Participant Manual

PowerPoint Presentation

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions. The trainer will ask each group to report out their main ideas and question to be addressed.

- What is an argument in academic research?
- How can we develop a hypothesis and build our argument?
- Can we conduct research without developing a hypothesis/thesis statement/argument? Why or why not?

READING PASSAGE

An argument is basically the proposed answer for a research question. After the researcher conducts a complete literature review that ensures that no other researchers have proposed the same argument, s/he finalizes the argument. For example, in prior readings we talked about the wood stove usage and its linkage to increased pollution in Kabul. How has the usage of wood stoves increased pollution in Kabul since 2002? After we are sure that no scholar has provided the answer we have in mind for this research question, we present our argument. In this case, the argument could be “Wood stove usage is one of the main factors for increased pollution in Kabul city since 2002.” This research will focus on finding facts and data to support that wood stove usage does really affect the levels of pollution in Kabul.

In academic research, argument is used to state a number of independent variables leading to a number of dependent variables, the result of which is something happens. The wood stove usage argument can be illustrated in the following diagram. However, this argument has covered only one independent and one dependent variable. Arguments can cover more independent and dependent variables, but it depends on the time constraints and resources available to the researchers. Therefore, researchers tackle limited independent and dependent variables. They usually address two or three. For the first time researcher, it is advisable to address only one independent and one dependent variable to conduct a short research project.

Independent Variable		Dependent Variable		Result/Outcome
Wood Stove Usage	→	Increasing Pollution	→	Kabul City Polluted

For those in the natural sciences, below is a short summary of things to consider when developing a hypothesis.

A hypothesis is a partial answer to a research question. Therefore, one hypothesis is not always enough for the research question. So to cover all aspects of the research question one may need to develop several concepts and hypotheses/arguments.

Organizing the research and developing our argument on the basis of hypotheses can help the researcher direct the research and stay on the right path. If the research does not build on the hypotheses, we cannot call it a research in the true sense. Thus, the hypotheses become the guiding tools for data collection, data which will then be tested against the hypotheses. Therefore, the hypotheses should always be in declarative form.

When developing a hypothesis the following points should be considered:

1. A hypothesis should be clear and concise. Ambiguous sentences should be avoided.
2. A hypothesis should be clearly defined, so that all audiences will understand it.
3. The boundary of each hypothesis should be specified, so that it will not overlap with other hypotheses.
4. If there are several hypotheses, they should not conflict with each other.
5. A hypothesis should be based upon the existing theories (a hypothesis that is developed on the basis of guess and fiction could be hardly proved).
6. A hypothesis should be testable (especially in natural science), so that it can be approved or rejected.
7. Finally, a hypothesis should covey only one idea.

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

participant

- What is an argument in academic research?

____

____

- How can we develop a hypothesis and build our argument?

- Can we conduct research without developing a hypothesis/thesis statement/argument? Why or why not?

IN-CLASS PRACTICE: CREATING AN ARGUMENT

Create your argument for the research question that you have already developed and chosen for your research proposal. Then, identify your independent and dependent variables that lead to the outcome.

My Argument:____

Independent Variable		Dependent Variable		Result/Outcome
	→		→	

ACTIVITY 3.2
CITING ACADEMIC SOURCES

Learning Objective: will learn the techniques for proper citations in academic writing

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions:

- What is a citation and why is it important in academic research?
- What types of information should be cited?
- What kinds of sources are used in academic research?

READING PASSAGE

What are the characteristics of academic sources?

- **Authoritative**: academic sources identify the qualifications and expertise of the writer. A source written by a recognized expert in a field is more likely to be trustworthy (although expertise should never be accepted blindly - see evaluating source quality for more).
- **Sourced**: academic writing is careful to credit the origins of information and ideas, usually by means of a reference list or bibliography.
- **Peer-reviewed**: other academics have read the source and checked it for accuracy. Before publication in an academic journal, for example, a panel of referees checks an article. Editors and other reviewers check academic books.
- **Objective**: academic sources aim to examine a topic fairly. This does not mean that they never take a side, but that the source does not ignore alternative positions on the topic.
- **Written for academics**: academic sources target university lecturers, students, and professionals interested in the theoretical side of a topic.

Types of Academic Sources

The most common forms of academic sources are:

- Books
- Journal articles
- Published reports

To identify an academic source, apply the criteria listed above:

- What are the qualifications of the author? Academic authors are likely to come from a university or institute, and a university press often publishes academic writing.
- Are sources listed? Look for a reference list or bibliography.
- Has the writing been peer-reviewed? Peer-reviewed journals will have an editorial board or committee listed, or will provide instructions to authors that describe a standard peer review.
- Is the writing objective? Sources that are blatantly one-sided are unlikely to be academic.
- Who is the target audience? Consider the style of the writing, the presence of advertising, and where you found the source (Massey Library has a more comprehensive selection of academic sources than public libraries, for example).

http://owll.massey.ac.nz/academic-writing/identifying-academic-sources.php

Citation

Any source of information that you use in your research needs to be cited. The information can include journals, books, videos, interviews, electronic web sites, and TV or radio broadcasts. Citation is a technique that helps researchers indicate the sources that they use in their research. It is very important in order to avoid plagiarism and to indicate that your claims are academically recognized. For example, if you are citing Ahmad's work on pollution in Afghanistan. Let's assume we quote his writings: "pollution is a major challenge that Afghanistan will have to deal with in the next 10 years (Ahmad, 2007, p. 20)." Or, we make a claim that Afghanistan is going to face environmental challenges in the next 10 years (Ahmad, 2007, p. 20). We can still cite Ahmad's work. His work is somehow related to the claim that we make. How do we cite it? There is an easy way if you are using Microsoft (MS) Word. Your facilitator will help you learn how to use MSWord citation tools.

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- What is a citation and why is it important in academic research?

____

____

- What types of information should be cited?

- What kinds of sources are used in academic research? How do we know they are credible?

IN-CLASS PRACTICE **CITATION**

Cite the following claims for practice purposes. Name, Date, Source, Page, Number

- Afghanistan is the most beautiful country in the world (Kareem, 1975, Kabul Journal, p.15) *Karim stated this in his academic article written in 1975 published in Kabul University Journal. This statement was in page 15 of this article*.
- Peace is the main source of stability in a society (Hunter, 1980, G.U.Law Journal, P.22). *Jack Hunter stated this in his academic article written in 1980 published in Gonzaga University Law Journal. This statement was in page 22 of this article*.

ACTIVITY 3.3
SUPPORTING A RESEARCH ARGUMENT

Learning Objective: will understand the importance of supporting an argument academically using verifiable sources

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions:

- What is the purpose of argumentation/ proving a hypothesis?
- How can a researcher academically support an argument?
- What constitutes weak argumentation?

READING PASSAGE

Argumentation is to provide support or back up for your hypothesis with scholarly recognized sources. For example, in our case scenario we talked about wood stove usage and pollution in Kabul. Our argumentation was that "Increased wood stove usage has led to greater pollution in Kabul city since 2002." To prove our argument academically, we will need to support it with sources. In this case, we need to look for statistics for wood consumption in Kabul. We might also carry out interviews with citizens living in different parts of Kabul regarding their wood usage per month during different seasons.

To support your argument/ hypothesis, you need to collect data and then analyze it. The main work of research starts when the researcher begins to prove his/her hypothesis. To prove his/her hypothesis, a researcher needs a theoretical framework. Sometimes there is only one theoretical framework but there can be also several frameworks, which can be synthesized together.

Once the theoretical framework is determined, the researcher can go through different related resources and if necessary, he can go for observation. In other words, he can use primary (obtained through observation) or secondary sources (books, papers, reports, journal written by others). The method chosen by the researcher is determined by the research topic and theoretical framework.

The next step for the researcher is to analyze the collected data. The intention of the research should be clear about what he wants to do. Does he want to describe, explain or criticize?

The process of analyzing data:

Step 1: Review your research question. At first, it is important to know the purpose of the research.

Step 2: Review the methods and tools used in collecting data (interview, questionnaire, survey, observation, etc.). Categorize the collected data according to methods used. It is important for the research to know the nature of data collected. Are they qualitative or quantitative? The research may have used mix method. So the data can be mixture of qualitative and quantitative data.

Step 3: After categorizing the data, try to summarize it and separate the most relevant data to the research topic.

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- What is the purpose of argumentation?

- How can a researcher academically support an argument?

- What constitutes weak argumentation?

IN-CLASS PRACTICE SOURCING

In groups of three or four, identify claims that require a supporting source:

- Ahmad is a human being.
- Afghanistan is becoming a center of regional trade.
- The percentage of divorce rate in the UAE is 50%.
- The sun rises in the east.
- China is a good country.
- Poverty is increasing by 10% every year in rural areas of Afghanistan.

- The United States is the leading donor country in the world.
- Asians are good people.
- China is a neighboring country to Afghanistan.
- Education is the key factor for the development of Afghanistan.
- Human beings need water to survive.
- Canada is a country.
- The country of Maldives will be underwater in the next 10 years.
- Wood stove usage increases pollution in the cities.
- Animals can't speak like human beings.
- Some animals have higher intelligence than human beings.

HOMEWORK **ARGUMENTATION**

When you identify the variables of your argument, you need to explain how you will support them. If you are going to use scholarly sources such as articles and books, find at least five credible sources. Then, explain how you will use these sources to support your variables. Here is an example for you to follow:

Wood stove usage causes increased air pollution in Kabul; as a result, Kabul city is polluted.

- *Wood stove usage is the independent variable of the argument*

The researcher will look at wood stove usage and its causes to the environment. S/he will look for scholarly sources that show the damages that wood stove usage causes to the environment. Here are some of the sources s/he has already identified: 1) Wood Stove Destroys the Clean Air by Karima in 2009. 2) Wood Stove is an Anti-Environment Practice by Nadim in 2012. 3) Environment Cannot Afford Our Ways of Cooking by Rahima in 2013. It is important to keep track and list every source that is used in research on an ongoing bases.

My argument

Find five sources of support.

1. ____
2. ____
3. ____
4. ____
5. ____

Session 4: Research Methods

AGENDA

Introduction to Methods of Research	(30 Minutes)
No Break	
Quantitative Method	(60 Minutes)
No Break	
Qualitative Method	(60 Minutes)
Break	(15 Minutes)
Mixed Method	(60 Minutes)
Lunch	(60 Minutes)
Collecting Data	(75 Minutes)
No Break	
Sampling	(75 Minutes)
Homework	(15 Minutes)

TOTAL TIME: 7.5 HOURS

ACTIVITY 4.1
INTRODUCTION TO METHODS OF RESEARCH

Learning Objective: will learn different methods of research

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions:

- What is a method of research?
- How does one select the research method?
- How many methods of research do you know? Please list them.

READING PASSAGE

Selecting the appropriate method of research is one of the most important decisions that a researcher makes. S/he needs to decide whether to use quantitative, qualitative or and a mixture of both. Your research question will dictate the types of information that will be gathered and the methodology that you will support your argument. If you are verifying existing theories or hypotheses, you will most likely collect quantitative data that is measurable. You will collect statistical data and then create analysis based on the numbers. If you are exploring a new area of study and trying to argue that a new approach will work, you will most likely need to use qualitative research methods. However because collections of statistics do not always provide clear answers to the why a situation may exist, researchers also use qualitative methods to uncover hidden assumptions, beliefs or rationale to support the quantitative data. Often researchers use both types of methods of a mixed approach and then “triangulate” the findings. To “triangulate the findings” means that information and data received can be verified by at least three sources.

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ’ to critically comment on each other’s answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- What is a method of research?

- How does one select the research method?

- How many methods of research do you know? Please list them.

IN-CLASS PRACTICE **IDENTIFYING THE METHOD OF YOUR RESEARCH**

Read the following argument and identify its variables (independent and dependent). Then, get into pairs to discuss the appropriate method to research the variables.

> A lack of strong civic education and employment opportunities for young males are leading to an increasing hostility in villages; as a result, the Afghan villagers are more distrustful of their neighbors.

ACTIVITY 4.2
QUANTITATIVE METHOD

Learning Objective: will understand the quantitative method of research

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions:

- What is quantitative data?
- What are the methods for collecting quantitative data?
- How is quantitative data used in a research project?

READING PASSAGE

Quantitative data refers to the investigation of social phenomena through the use of statistical, mathematical or computational data. The goal of quantitative research is to test a hypothesis, look at cause and effect and make predictions through the use of numbers. In our wood stove usage example, the researcher might look into the percentage increase of wood stove usage in relation to the percentage increase in pollution. S/he would collect data on the percentage increase in wood stove usage and the percentage increase in pollution. Then, s/he will draw the correlation that a percentage increase in wood stove usage has increased the amount of pollution in Kabul city.

Because numbers are the driving factors for the hypothesis or argument in quantitative research, there are clear negative or positive results. Though they can be manipulated or skewed, in general they provide a clear image of the outcome. On the other hand, qualitative data is based on words and impressions or observations. If someone is a good writer, s/he can convince the reader; in quantitative research, statistics or the numbers speak for themselves.

The researcher who employs the quantitative research method asks specific and narrowed down questions regarding his or her research question. Specific data on variables is collected; this usually involves the use of precise measurements using very structured instruments. S/he will then collect samples of numerical data from or observation and then analyze this data. Quantitative data is widely used in fields such as psychology, economics, sociology, political sconce and physics. Quantitative research is more objective and critical than qualitative research and seeks to prove the hypothesis through statistical findings.

Key features of quantitative methods:

1. Quantitative method deals with numbers and statistics.

2. This methods use sampling.
3. It uses statistical methods to count and measure the results of the research.
4. Quantitative method tends to test the hypothesis

What might be the strengths and weaknesses of conducting research that only employs the quantitative method?

Strengths:

1. Accuracy, because it uses reliable measures.
2. Control, because it uses a sample
3. Quantitative methods are able to identify the causal relationships through controlled tests
4. Quantitative methods use statistical techniques which help the researcher in analyzing complex data
5. Quantitative methods should be repeatable with similar results

Weaknesses:

1. Since the human experience is very complex and unique, it is difficult to control the variables.
2. Because human beings are dynamic and changing, their behavior is not the same all the time. It may change based on circumstances.
3. Over emphasis on quantitative data may become the main focus of the research.

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- What is quantitative data?

- What are the methods for collecting quantitative data?

- How is quantitative data used in a research project?

IN-CLASS PRACTICE **IDENTIFYING THE METHOD OF YOUR RESEARCH**

Read the following argument and discuss the quantitative method that you would use to support this argument. Please provide justification for your choice.

A lack of strong civic education and employment opportunities for young males are leading to an increasing hostility in villages; as a result, the Afghan villagers are more distrustful of their neighbors.

ACTIVITY 4.3
QUALITATIVE METHOD

Learning Objective: will understand the qualitative method of research

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions:

- What is qualitative data?
- What are the methods for collecting qualitative data?
- How is qualitative data used in a research project?

READING PASSAGE

Qualitative research is most often used in fields such as education, nursing, sociology, anthropology, business, health, and information studies. In order to gain the information about the new idea the researcher needs to be close to the subject of research. The researcher will need to observe actions, interview individuals, and often become intimately involved with the subject being researched. This can mean that the method used needs to be more unstructured such as semi-structured and open-ended interview allowing the interviewees to answer in a variety of ways.

Overall, the qualitative research method includes the following:

- The focus of qualitative methods is analyzing data collected through observations and interviewees to find out what people are doing and saying about a particular area of study. Sometimes, researchers live closely to the subject of research in order to have real life experience of the subject of research.
- In qualitative research, researchers try to understand the concepts, definitions, and characteristics of the research subject.
- In qualitative research, researchers are flexible with their data collections. They can change their questions if necessary.
- In qualitative research many perspective can be included rather than one.

Qualitative methods are increasingly being used among academics. They are particularly used when researching on variables that require theoretical reasoning for existing phenomena. However, it has some limitations. Below are just a few strengths and weaknesses of the qualitative method of research.

Strengths:

1. Due to the direct participation and intervention, a researcher is able to understand the attitudes of the subject under study and this helps the researcher to find out the unknown about the subject
2. A qualitative method is descriptive and hence plays a key role in predicting the relationships, their reasons and effects and dynamic processes.
3. The researcher is involved in depth in social analysis.

Weaknesses:

1. In this method, data collection and analysis is very time consuming.
2. The direct participation of the researcher in the research has a profound effect on the study.

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- What is qualitative data?

___

___

- What are the methods for collecting qualitative data?

___

___

- How is qualitative data used in a research project?

___

___

IN-CLASS PRACTICE **IDENTIFYING THE METHOD OF YOUR RESEARCH**

Read the following argument and discuss the qualitative method that you would use to support it. Please provide justification for your choice.

A lack of strong civic education and employment opportunities for young males are leading to an increasing hostility in villages; as a result, the Afghan villagers are more distrustful of their neighbors.

ACTIVITY 4.4
MIXED METHOD

Learning Objective: will understand the mixed method of research

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions:

- What is the mixed method?
- When is the mixed method used?
- What are the strengths and weaknesses of the mixed method?

READING PASSAGE

Mixed method, as its name indicates, is a combination of qualitative and quantitative methods. This method became common when a number of researchers found out that in order to examine a subject from all aspects, it is necessary to collect both qualitative and quantitative data. The primary objective of the researcher, who uses these methods in his/her research, is to examine a subject from every possible aspect. The researcher can convert gathered information from those interviewed into numbers or statistics. We need both types of data. The mixed method tries to utilize positive aspects of both qualitative and quantitative methods to reach a practical solution to the presented problem. While collecting data, quantitative data can help provide a statistical based for the research. On the one hand, qualitative data can illuminate the quantitative data information that was collected as well as provide other types of information. During the analysis of data, quantitative data can make the generalization of qualitative data easier.

Where to use the mixed method?

1. Action research
   - Practical
   - Participatory
   - Community-Based
2. Mixed Designs
   - Triangulation
   - Explanatory
   - Exploratory

Strengths:

3. Using mixed method words, images and narration can be used to give meaning to numbers.
4. Numbers can be used to give accurate meaning to words, images and narrations.
5. This method uses the strong points of both qualitative and quantitative methods at the same time.
6. Using this method, broader questions can be answered more completely because the researcher is not limited to using only one method.
7. The researcher can use the strengths of one method to overcome the weaknesses of the other method.
8. By comparing the results obtained from both methods, the researcher can obtain more concrete evidence for conclusions.
9. Using both qualitative and quantitative methods contributes to a more complete knowledge for theory and practice.
10. The mixed method helps in examining those aspects that cannot be studied by using only one method, be it qualitative or quantitative.

Weakness:

1. It is more work for the researcher to use both methods at the same time.
2. The researcher must know enough about both methods in order to for him/her to mix them together in an appropriate way.
3. It is expensive
4. It is time consuming

POST-READING ACTIVITY

In writing, please answer the following questions in your own words. Then, exchange your book with another participant to critically comment on their answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- What is the mixed method?

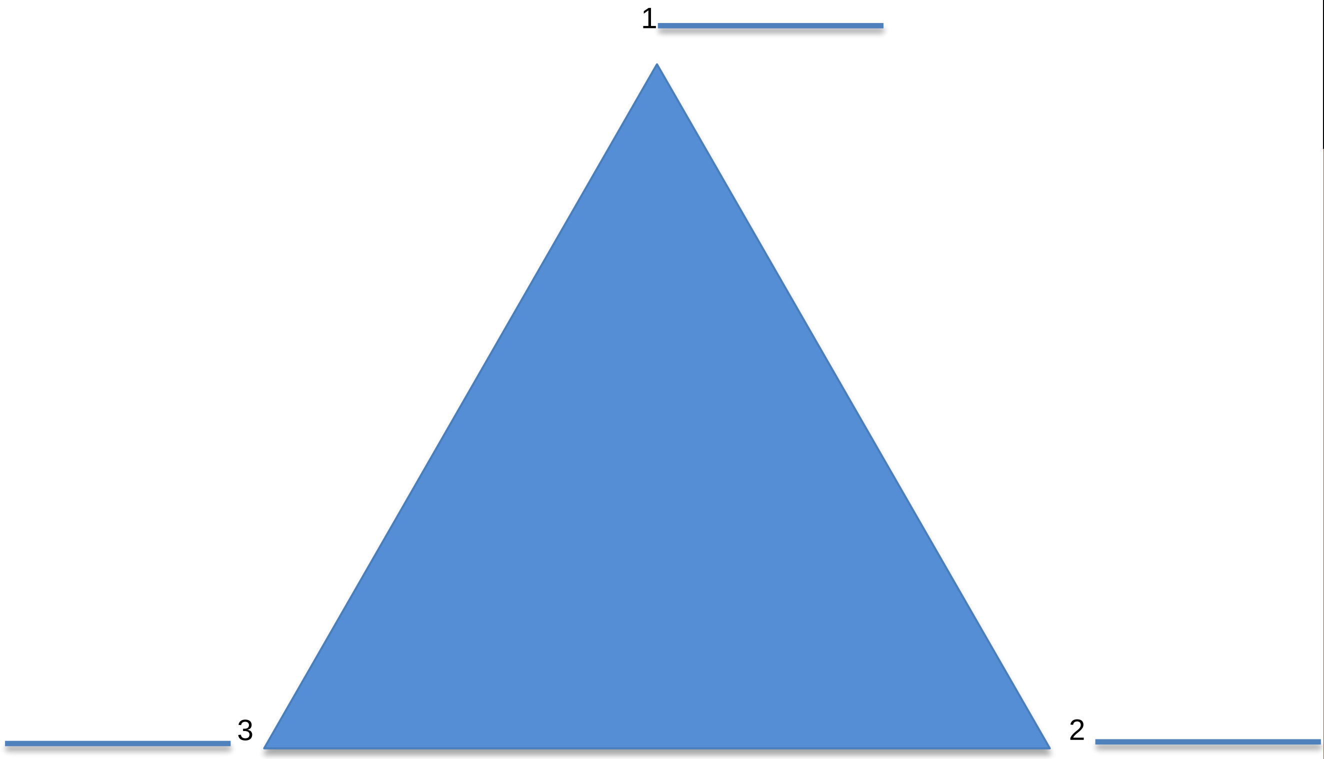
- Where can the mixed method be used?

- What are the strengths and weaknesses of the mixed method?

IN-CLASS PRACTICE **TRIANGULATION PART 1**

Continue discussing the argument on increasing hostility amongst males in Afghanistan. In groups, decide on how you would triangulate data to ensure verification. Which data would you triangulate in this case? Remember, to triangulate, one must verify three sources of information. Once you are finished, share your information with the class.

A lack of strong civic education and employment opportunities for young males are leading to an increasing hostility in villages; as a result, the Afghan villagers are more distrustful of their neighbors.



ACTIVITY 4.5
DATA COLLECTION

Learning Objective: will learn to select the proper tools for data collection

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions:

- What tools can be used to collect data? Please list them.
- How can a researcher ensure the validity of the data?
- From your perspective, what is the most realistic way of collecting data in Afghanistan?

READING PASSAGE

The data needed for research purposes can be collected using different tools and methods. The most popular and important tools for collecting data are observation (feeling and experiencing), reflection, introspection, and studying other existing sources.

Observation

If our research is about nature (human, things and phenomenon), the primary method of data collection is to go into nature, observe, and experience. Observations can be of two types:

1. **Natural Observation (simple and uncontrolled observation):** if the observer/researcher cannot or should not intervene in the situation being observed, it is called natural or uncontrolled observation. This method is used both in natural science and social science. For instance, since astrologists cannot interfere with astronomical phenomena, they conduct natural observation.
   Researchers, who study human behavior or conduct psychological and sociological surveys, do this type of observation. In this type of observation, the observer/researcher should record his observations as data.
2. **Controlled Observation (experiment):** In this type of observation, the researcher does not simply observe, but designs an experiment and by doing so s/he manipulates the variables to observe what will happen to dependent variables. Controlled observation is the most important and common method in experimental researches. Through experimental research, one can identify the causal relations existing among variables. However it must be mentioned that this type of observation in a complete manner is only possible in natural science (physics,

chemistry, biology, etc.) and in no way can it be conducted in a complete manner in arts/social science, because the subject of observation, being human, cannot be controlled.

A researcher who conducts research in the social sciences, must answer the following questions to collect data:

- What am I going to observe?
- What is the scope of the observation?
- How will the observation be done and by the help of what tools?

While conducting observations, especially natural observations, the observer is expected to consider the following:

- Do not intervene if you do not like something about the subject.
- Remember that your purpose is not to interrupt but to observe.
- Use not only your eyes but also all senses.
- Record your feelings after observation.
- Record what you are thinking while conducting the observation.
- Record the particulars of the situation: a brief description of the location, time, and nature of the subject observed. For example if your subject study is students, their numbers, gender, race, etc. should be mentioned.

Tools Used in Direct Observation

A researcher doing direction observations does not need any special tools. A clear procedure and guidelines would be enough for the observer to study the subject and record his/her observations.

Tools Used in Indirect Observation

A) Questionnaire

Questionnaires consist of a series of questions. The participant will provide the required information through reading questions and answering them. A questionnaire is one of the common tools for data collection especially in experimental descriptive researches.

A questionnaire may contain two types of questions: structured questions and unstructured questions.

Structured question: in this type of question, the questionnaire design specifies answers and the must choose one. The answer to some questions can be “yes”, “no,” or “correct”, “incorrect”.

Examples:

- Are you satisfied with being a teacher? a) Yes   b) No
- There are 237 education universities in Afghanistan. a) correct   b) incorrect

- How many days should a newly recruited teacher should be trained in order to become actually able to teach?

  a) 2 days b) 5 days c) 16 days

Unstructured Question: for these types of questions, the researcher does not specify the answer to the questions. The interviewees can answer the questions in their own ways. Unstructured or open-ended questions encourage the interviewees to answer the question in detail.

Examples:

- Why did you choose teaching as your profession?
- What do you suggest as improvements to the curriculum?
- Why are children less active in your school?

The Process for Developing a Questionnaire

- Write down the study objectives on the top front of the questionnaire.
- Be clear about what you want ask.
- Your questions should be related to what you are going to research.
- Determine the size of your sample population.
- Distribute the questionnaires.
- Analyze the collected data.

B) Interview

Interviews require face-to-face meetings in which the researcher asks questions and the interviewee answers, the purpose of it being to gather data. The main difference between a questionnaire and an interview is that in an interview the interviewer meets the interviewee and asks the questions directly, while for questionnaires the researcher and participant might not meet face to face. So in conducting interviews, it is easier to understand the perceptions, attitudes, interests, and wishes of the interviewees.

There can be two types of interviews, namely, structured interviews and unstructured interviews.

Structured Interview: in this type of interview, the researcher develops the questions beforehand and conducts the interview according to the prepared questions.

Unstructured Interview: there are no predetermined questions for this type of interview. The purpose of conducting this type of interview is to create a natural situation for dialogue. The interviewer may ask questions according to the interviewee’s answers. When structured and unstructured interviews are combined, it can be referred to as a **semi-structured interview.**

The process of conducting an interview:

- Choose a quiet place where you can personally interview the participant
- Explain the purpose of the interview
- Remind the participant that, if s/he wishes, his/her identity will remain secret
- Tell the participant how long the interview will last
- Either note or record the interviewee's responses

Searching for Scholarly Sources

In many cases we have no option but to refer to others works, because conducting direct observation is not always feasible and possible. So, in order to gather data about the subjects which cannot be observed or tested, we need to seek help from other available academic sources. In doing so, it is of great help to follow these principles.

1. Collect Relevant Data Only
   The researcher must look for the relevant data. The best tool to determine what data should be collected is the research question. One of the factors that may cause the researcher to become confused and deviate from the track is collecting irrelevant data. Analysis of a large volume of mostly irrelevant data is very difficult.
2. Collect Necessary Data Only
   Try to collect only necessary data and avoid collecting huge volumes of unrelated data. Collection of irrelevant data will cause the researcher to deviate from the main track. The scope of the research will determine what kinds of data should be collected.
3. Using Reliable Sources
   Reliability is one of the main conditions for research. In experimental research, the researcher is required to, along with preparing tools for data collection, evaluate their reliability and validity. In searching for academic resources, the researcher should collect reliable and valid data. One way to determine the reliability of the sources is to see if they are using data first hand.
4. How To Use Other Sources
   The researcher can use other sources for his research purpose in three different ways:
   1) direct quotations 2) summarization 3) interpretation of texts
   - **Direct Quoting:** if the data in the sources is presented in such a way that requires no changes, it is better to quote it directly without any manipulation. Quotation marks (“”) should be used for direct quoting.
   - **Summarizing:** sometimes a point has been explained in the source along with examples and other components which do need to be mentioned in the researcher's report. In such conditions, the researcher can summarize the text and put in only the required data. Wherever an omission has occurred, the researcher can put three dots (…) to indicate that some unnecessary parts have been omitted.

- **Interpreting:** sometimes the researcher does not necessarily quote what the source says, but writes down what he thinks about the point brought about in the source. It is worth mentioning that the researcher should be careful to interpret the text as correctly as possible.

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- What tools can be used to collect data? Please list them.

- How can a researcher ensure the validity of collected data?

- From your perspective, what is the most realistic way of collecting data in Afghanistan?

IN-CLASS PRACTICE TRIANGULATION PART 2

Your class will be divided into two sections, A and B. Section A will work in groups of three or four to develop a questionnaire for surveying villagers (5 to 6 questions). The purpose of this questionnaire is to collect data on how villagers view the causes of mistrust in their communities. The questionnaire can include structured or unstructured questions. Section B will divide into groups three or four to develop interview questions for interviewing chiefs of the villages. The questions will be structured to collect data for causes of mistrust among villagers.

Then, Section A will develop a questionnaire to understand how villagers view the causes of mistrust in their communities. Section B will write up a structured interview for villagers. Afterwards, the whole group will discuss if using these methods will provide enough valid data that can be triangulated.

ACTIVITY 4.6
SAMPLING

Learning Objective: will learn to select the proper tools for data collection

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions.

- What is sampling in data collection?
- What are types of sampling?
- Describe the process of sampling and its characteristics.

READING PASSAGE

What is sampling? Sampling is a method of selecting a few from the larger population for a study purpose. In other words it is a technique which provides an opportunity for the researcher to select a few individuals from the larger population and collect data about them.

A sample consists of a selected group of individuals/ things from a larger population. A sample is the smallest independent unit which provides us with an answer. The sample must represent the statistical population, that is, it should be composed of characteristics that make up the statistical population, especially those that are important for research purposes. Therefore we can say that a sample is composed of a number of individuals from the population who share common characteristics and hence represent the population.

Why do researchers take samples? If the population under study is very large it would be difficult to study the whole population. In order to make it possible for the researcher to study the population, s/he selects only a few of them as a sample to study. S/he can study the characteristics of the population through studying the sample.

Types of sampling

Sampling can be broadly categorized into probability sampling and non-probability sampling. In probability sampling, all individuals have an equal chance of being selected. In non-probability sampling the researcher interferes in the selection of individuals as samples. These two categories of sampling can take many forms. For the purposes of this activity we shall describe the probability sampling category of simple random samples and systematic samples in detail. The other category of non-probability sampling (random and snowball sampling) you may research on your own.

Probability Sampling:

- Simple Random Sample
- Systematic Sample

Non-probability Sampling:

- Random sampling
- Snowball sampling

Simple Random Sample

This type of sampling is the most basic probability form of sampling. In this type of sampling, every member of the population has an equal opportunity to be taken as a sample. Things or people are randomly selected from a prepared list of the whole population. For example, suppose that you want to select ten students out of one hundred as your sample. The first step is to make a list of all students and give each student a number. Then randomly chose ten numbers. Those students with the correct corresponding number will be the ones selected for the study.

Systematic Sampling

When all members of a population are defined and their list has randomly been prepared, this is an example of systematic method sampling. Contrary to the simple random sampling, in this type of sampling the researcher develops a system for determining the sample. For instance, suppose you are interested in selecting ten students out of 50 as samples. First, choose a number for each student (Ahmad #1, Sakina# 2, etc.). Next, make five rows in such a way that each row contains ten numbers. Now you can select the first and fifth number from each row as a sample. See the table below. The selected numbers are your samples.

1	11	21	31	41
2	12	22	32	42
3	13	23	33	43
4	14	24	34	44
5	15	25	35	45
6	16	26	36	46
7	17	27	37	47
8	18	28	38	48
9	19	29	39	49
10	20	30	40	50

The Process of Sampling

1. Identify the number of required things or individuals that will give you the information you need. For instance, if you are interested in studying the behavior of teachers in Afghanistan, teachers will be you study population, the number of whom should be specified by you.
2. Think about the total number of teachers and then carefully select some of them as samples. For example, if the total number of teachers equals to 100, 10 teachers will be a good sample.
3. The sample should represent the population. For example, teachers consist of both men and women, so the sample should represent both sexes.
4. Make a list of all teachers and give each a specific number. This will help you to act without bias.
5. When the sample is taken, you can think of the tools (interview, questionnaire, etc.) for collecting the sample.

A good sampling example can be found in the link below:

(Source: http://reference1.blogfa.com/post-10.aspx)

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- What is sampling in data collection?

- What are the types of sampling?

- Describe the process of sampling and its characteristics.

IN-CLASS PRACTICE SAMPLING

Your class will be divided into two groups, A and B. Group A will take a systematic sampling and group B will take a random sampling. The population of study will be your classmates.

HOMEWORK DATA COLLECTION METHODOLOGY

Write a brief description of your data collection methodology. Be specific about sources. If you use scholarly sources, describe why you selected them and what they provided. If you collect qualitative data, describe the tools, questionnaires, surveys, etc. Also, include who and how many people were interviewed and how they were selected. If you intend to use quantitative data, explain how you are going to collect it.

Session 5: RESEARCH FINDINGS

AGENDA

Drawing Conclusions	(75 Minutes)
Break	(15 Minutes)
Predictions	(75 Minutes)
Break	(15 Minutes)
Policy Options / Recommendations /Suggestions	(75 Minutes)
Homework	(15 Minutes)

TOTAL TIME: 4.5 HOURS

ACTIVITY 5.1
DRAWING CONCLUSIONS

Learning Objective: will learn how to draw conclusion based on findings

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions:

- What should be included in the conclusion?
- What is the function of a summary?
- Is it appropriate to include new information in a summary of a research project? Why or why not?

READING PASSAGE

The purpose of a conclusion is to tie together, or integrate, the various issues, research, etc., covered in the body of the paper, and to make comments upon the meaning of all of it. This includes noting any implications resulting from your discussion of the topic, as well as recommendations, forecasting future trends, and the need for further research.

The Conclusion Should

- Be a logical ending to what has been previously discussed. It must pull together all of the parts of your argument and refer the reader back to the focus you have outlined in your introduction and to the central topic. This gives your essay a sense of unity.
- Never contain any new information.
- Usually be only a paragraph in length, but in an extended essay (3000+ words) it may be better to have two or three paragraphs to pull together the different parts of the essay.
- Add to the overall quality and impact of the essay. This is your final statement about this topic; thus it can make a great impact on the reader.

The Conclusion Should Not

- Just sum up results.
- End with a long quotation.
- Focus merely on a minor point in your argument.
- Introduce new material.

The Content of a Conclusion

The conclusion may include:

- A summary of the arguments presented in the body and how these relate to the essay question
- A restatement of the main point of view presented in the introduction in response to the topic
- The implications of this view or what might happen as a result.

The Structure of a Conclusion

Like introductions, it is best to keep to a simple structure. Begin with a sentence that refers to the main subject that was discussed in the body in the essay. Make sure that this sentence also links to the preceding paragraph, or uses words such as “in conclusion” to signal that these are your final words on the subject.

Then, you may give a brief summary of your argument and identify the main reasons/causes/factors that relate to the question you have been asked to address. If there are two or more parts to the question, be sure to include responses to each part in your conclusion.

Finally, it is a good idea to add a sentence or two to reinforce the thesis statement, which was used in your introduction. This shows the reader that you have done what you said you would do and provide a sense of unity to the essay.

http://www.canberra.edu.au/studyskills/writing/conclusions

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- What should be included in the conclusion?

____

____

- What is the function of a summary?

____

____

- Is it appropriate to include new information in a summary of a research project? Why or why not?

IN-CLASS PRACTICE DRAWING CONCLUSIONS

In groups of three or four, draw a conclusion for the given research findings. "A group of researchers studied 25 families to find out their wood consumption. The findings indicate that each family has increased their wood consumption by 15% annually over the past ten years.

"The researchers were trying to identify the contributing factors to the 10% increase in air pollution in Kabul city. They argued that wood stove usage was the contributing factor for this increase."

Now, write a short conclusion for the given example in the space below and then share it with another group for feedback.

ACTIVITY 5.2
PREDICTIONS

Learning Objective: will learn how to make predictions

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions:

- What is the role of prediction in an academic research project?
- What kinds of information should a prediction include?
- Is scenario-making a good way of projecting the future? Why or why not?

READING PASSAGE

Overall, the final purpose of research is to identify the relationship between the variables. Once the variable relationship is identified, a researcher can conclude and predict the future conditions. A research study without predictions for what will happen in the future is not a complete research study. In the prediction section, which is usually combined with a conclusion, the researcher will explain what will happen in the future under such a condition. The researcher predicts according to the research findings. That is to say, his/her prediction must be rational.

The researcher can make predictions by presenting a scenario. For example, a researcher has conducted research about green tea effects and has found that drinking green tea will reduce stress levels. S/he can predict that if people drink green tea, they will face less stress and as a result we would have a happier community.

Predictions should have a rationale to explain why the author has made it. Typically, predictions are presented in such a way that the writing suggests that the researcher finds the prediction plausible.

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- What is the role of prediction in an academic research project?

- What kinds of information should a prediction include?

- Is scenario making a good way of projecting future? Why or why not?

IN-CLASS PRACTICE **MAKING PREDICTIONS**

In groups of three or four, you will make predictions about the increase of wood and wood stove usage in Kabul. What will happen if families continue this practice? How will it contribute to pollution in Kabul? What might be some consequences of the increased air pollution? You can create bulleted statements or a scenario. Afterwards, you will share your predictions with the class.

ACTIVITY 5.3
POLICY OPTIONS / RECOMMENDATIONS / SUGGESTIONS

Learning Objective: will learn how to suggest feasible recommendations

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions:

- What is the purpose of making recommendations in an academic research project?
- How can a researcher present feasible recommendations or policy options?
- Is academic research complete without recommendations? Why or why not?

READING PASSAGE

The last section of any research paper is usually devoted to recommendations/policy options/solutions. A researcher can use the SWOT Analysis (Strengths, Weaknesses, Opportunities and Threats) as a tool to make feasible recommendations. Research without recommendations or solutions for the stated problem is often not considered valuable because it does not offer any answers to the problem.

In addition, a researcher may consider the following characteristics of a good policy option/recommendation/solution:

1. **Conciseness**: Decision-makers tend to be busy people, with lots of documents demanding their attention. Make sure that documents are as focused and concise as possible so that your readers spend only the minimum time required to get the information they need.
2. **Readability**: The ideas must be clear, readable and easy to understand in a short time no matter how complex the issue or the recommendation.
3. **Accuracy**: Recommendations must be based on the most recent, accurate, and complete information available.

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- What is the purpose of making recommendations in an academic research project?

- How can a researcher present feasible recommendations or policy options?

- Is an academic research complete without recommendations? Why or why not?

IN-CLASS PRACTICE SUGGESTING RECOMMENDATIONS

In groups of three or four, make one recommendation to address the increase of wood and wood stove usage in Kabul. Apply the SWOT Analysis (Strengths, Weaknesses, Opportunities and Threats) when making recommendations. After, analyze the feasibility of your recommendation using the SWOT Analysis table. Then, present it to the class. The trainer will choose the most "outstanding" recommendation.

SWOT Analysis: *Recommendations*

*What are the **strengths** of the recommendation?*	- - -
*What are the **weaknesses** of the recommendation?*	- - -
*What are the **opportunities** that the recommendation creates?*	- - -
*What are the **threats** that the recommendation presents?*	-

	- -

HOMEWORK MAKING PREDICTIONS

Write at least one scenario that will illustrate future predictions for your research. This could be used as part of your research proposal.

Session 6: References & Abstract

AGENDA

References/Bibliography/Works Cited	(75 Minutes)
Break	(15 Minutes)
Abstract	(75 Minutes)
Break	(15 Minutes)
Post-Test	(30 Minutes)
Evaluations	(30 Minutes)

TOTAL TIME: 4 HOURS

ACTIVITY 6.1

REFERENCES / BIBLIOGRAPHY / WORKS CITED

Learning Objective: will learn how to organize sources used in their research project

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions:

- What is a reference in academic research?
- Why is it important?
- What information is included in a properly referenced source?

READING PASSAGE

Your list of works cited should begin at the end of the paper on a new page with the title “References” centered. Alphabetize the entries in your list by the author's last name, using the letter-by-letter system ignoring spaces and other punctuation. Only the initials of the first and middle names are given. If the author's name is unknown, alphabetize by the title, ignoring any ‘A’, ‘An’, or ‘The’.

For dates, spell out the names of months in the text of your paper, but abbreviate them in the list of works cited, with the exception of May, June, and July. Use either the day-month-year style (22 July 1999) or the month-day-year style (July 22, 1999) and be consistent. With the month-day-year style, be sure to add a comma after the year unless another punctuation mark goes there.

Underlining or Italics?

When reports were written on typewriters, the names of publications were underlined because most typewriters had no way to print italics. If you write a bibliography by hand, you should still underline the names of publications. But, if you use a computer, then publication names should be in italics as they are below. Always check with your instructor regarding their preference of using italics or underlining. Our examples use italics.

Hanging Indentation

All APA citations should use hanging indents, that is, the first line of an entry should be flush left, and the second and subsequent lines should be indented 1/2" (1.27cm).

Capitalization, Abbreviation, and Punctuation

The APA guidelines specify using sentence-style capitalization for the titles of books or articles, so you should capitalize only the first word of a title and subtitle. The exceptions to this rule would be periodical titles and proper names in a title, which should still be capitalized. The periodical title is run in title case, and is followed by the volume number, which, with the title, is also italicized.

If there is more than one author, use an ampersand (&) before the name of the last author. If there are more than six authors, list only the first one and use et al. for the rest.

Place the date of publication in parentheses immediately after the name of the author. Place a period after the closing parenthesis. Do not italicize, underline, or put quotes around the titles of shorter works within longer works.

Format Examples

Books

Format:

Author's last name, first initial. (Publication date). Book title. Additional information. City of publication: Publishing company.

Examples:

Allen, T. (1974). Vanishing wildlife of North America. Washington, D.C.: National Geographic Society.

Journal Articles

Format:

Author's last name, first initial. (Publication date). Article title. Periodical title, volume number(issue number if available), inclusive pages.

Example:

Motaheri, S. (1974). The Wood Stove Crisis. The South Asian Journal of Environment. 60 (45). p.25.

Source: http://www.sciencebuddies.org/science-fair-projects/project_apa_format_examples.shtml

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- What is a reference in academic research?

- Why is it important?

- What information is included in a properly referenced source?

IN-CLASS PRACTICE **WRITING REFERNCES**

In pairs, write three imaginary references about a research topic of your choice using the format that you learned. Be sure to use the formats for books and journal articles. After you have finished this, go online and research on how to make references for online sources such as website. Write two references for your research topic.

- Reference # 1:

- Reference # 2:

- Reference # 3:

- Website Reference # 1:

- Website Reference # 2:

ACTIVITY 6.2
ABSTRACT

Learning Objective: will understand the four basic elements of a strong abstract

Materials: Participant Manual

PRE-READING GROUP DISCUSSION

In groups of four, discuss the following questions:

- What is an abstract in an academic research paper?
- What is the main purpose of an abstract?
- What are the important elements of a well-written abstract?

READING PASSAGE

An abstract is a short summary of your completed research. If done well, it makes the reader want to learn more about your research.

These are the basic components of an abstract in any discipline:

1) Motivation/problem statement: Why do we care about the problem? What practical, scientific, theoretical or artistic gap is your research filling?

2) Methods/procedure/approach: What did you actually do to get your results? (e.g. analyzed 3 novels, completed a series of 5 oil paintings, interviewed 17 students)

3) Results/findings/product: As a result of completing the above procedure, what did you learn/invent/create?

4) Conclusion/implications: What are the larger implications of your findings, especially for the problem/gap identified in step 1?

However, it's important to note that the weight according to the different components can vary by discipline. For models, try to find abstracts of research that is similar to your research. In this case, one example is below.

Overview of transportation in Kabul City, Afghanistan

By: Abdullah Habibzai

ABSTRACT

Afghanistan and its capital, Kabul, are often in the news as they recover from the years of war with the help of the international community and in particular the United States. Much of the transportation infrastructure has either been damaged or has deteriorated due to lack of regular maintenance over the last three decades. This article presents an overview of the current state of transportation in Kabul and highlights the opportunities for improving the transportation situation through practical research. Specifically, this article discusses the layout and demographics of Kabul, the system of roads, the traffic composition and demand, the public transportation system, the freight and air transportation systems, the traffic regulations, highway safety, transportation security and vehicle emissions. By outlining the current state of affairs, the potential areas of research and improvement are identified. Two important areas of research include systematic planning to rectify the haphazard development that occurred in recent years and creative traffic control strategies to improve highway efficiency and safety. Out of the past destruction of transportation infrastructure arises a Phoenix-like opportunity to re-birth a brand new transportation system for Kabul.

Source: https://ronna afghan.harmonieweb.org/Lists/Submitted%20Content/Attachments/2620/Overview%20of%20Transportation%20in%20Kabul.pdf

POST-READING ACTIVITY

Write answers to the questions below in your own words. Then, exchange your book with two other ' to critically comment on each other's answers. Are their answers clear? Do you agree with their answers? What is missing in their answers? How could their answers be improved?

- What is an abstract in an academic research paper?

___

___

- What is the main purpose of an abstract?

___

___

- What are the important elements in a well-written abstract?

IN-CLASS PRACTICE ABSTRACT ANALYSIS

In pairs, read the abstract presented in the reading. Identify and underline the sentences that address four components of the abstract mentioned in the reading.

APPENDIX

1. Ethical Guidelines for Academic Research (Power Point Presentation)
2. Tulsa University Ethical Guidelines (Reading)
3. SMART PowerPoint presentation
4. Sample of Literature review (Reading)
5. Building an Argument (Power Point Presentation)
6. Skeleton of an Academic Research Paper
7. Qualitative Versus Quantitative Research
8. Publication Skills by HEP

1) ETHICAL GUIDELINES FOR ACADEMIC RESEARCH

Ethical Guidelines for Academic Research

Personal Bias

- Objective research
- Considering validity
- Proper documenting
- Avoiding subjective research

Data Organization

- Ethical & moral guidelines (validity)
- Accuracy & verification
- Documentations, record keeping
- Avoid ignorance, misrepresenting or skewing the actual data

Consent Of The Subject

- Getting consent
- Explanation of the research goal
- Lying or false claiming
- No harm or interference

Confidentiality

- Confidentiality of the identity
- Waivers for published pictures

Plagiarism

- Avoid plagiarism
- Citation and Quotation
- Determination of references & sources

Authorship

- Single author
- Co- author
- Authors

2) TUSLA UNIVERSITY ETHICAL GUIDELINES

I. Background/Introduction

The integrity of the research process is an essential aspect of a university's intellectual and social structure. Research is defined as all investigative, scholarly, and creative activity that supports the intellectual endeavors of the University. Although incidents of misconduct in research may be rare, those that do occur threaten the entire research enterprise.

The integrity of the research process must depend largely upon self-regulation. Formalization of the rights and responsibilities underlying scientific method is imperative in the research process. The University is responsible both for promoting academic practices that prevent misconduct and also for developing policies and procedures for dealing with allegations or other evidence of fraud or serious misconduct. All members of the University community--students, staff, faculty and administrators--share responsibility of developing and maintaining standards to assure ethical conduct of research and detection of abuse of these standards.

In dealing with this problem it is important to create an atmosphere that encourages openness and creativity. Good and innovative science cannot flourish in an atmosphere of oppressive regulation. Moreover, it is particularly important to distinguish misconduct in research and scholarship from the honest error and the ambiguities of interpretation that are inherent in the scientific process and are normally corrected by further research. The policies and procedures outlined below apply to faculty, staff and students; however, they are not intended to address all academic issues of an ethical nature. For example, discrimination and affirmative action are covered by other University policies.

II. Ethical Conduct in Academic Research and Scholarship

The primary way to encourage appropriate conduct in research and scholarship at the University is for faculty to promote and maintain a climate consistent with high ethical standards. To reduce the likelihood of misconduct in research and scholarship, the faculty and administration should facilitate the following.

A. Encouragement of intellectual honesty. Because of the importance of a climate of intellectual honesty in a university community, a commitment to the ethical responsibilities of academia by all of its practitioners is essential. We must emphasize the importance of such common practices as submission of work to peer review, avoidance of conflict of interest, scholarly exchange of ideas and data, and self-regulation. Mentor relationships between academic leaders and new practitioners serve to guarantee the transmission of ethical standards.

B. Assurance that quality of research, scholarship, and creative activity is emphasized.

C. Acceptance of responsibility by supervisor as appropriate to the discipline. University policies must define a locus of responsibility for the conduct of research and must ensure that the individual(s) charged with the supervision of researchers can realistically execute the responsibility. These supervisors of research should be experienced academicians who serve as mentors in transmitting the ethics and responsibilities underlying scientific and humanistic research. The larger the research team, the more critical the role of the supervisor in promoting open communication and scholarly exchange of ideas, data, and results. It is also the responsibility of the supervisor to encourage publication of as much primary data as possible.

D. Establishment of well-defined research procedures. Well-designed and strictly-adhered-to research methods are a deterrent to fraud. Bias in data analysis and interpretation will be avoided by following practices common to the disciplines.

E. Appropriate assignment of credit and responsibility. Publications should recognize the contributions of others through adequate citation and/or acknowledgement. Publications should also name as authors only those who have had a genuine role in the research and who accept responsibility for the quality of the work being reported.

III. Definitions

A. "Misconduct in research and scholarship" means any form of behavior which entails an act of deception whereby one's work or the work of others is misrepresented. Other terms, such as research fraud or scientific misconduct, are subsumed within the term as defined. Misconduct in research and scholarship does not include honest error, or honest differences of interpretations or judgments of data. The principal element of misconduct in research and scholarship is the intent to deceive others or misrepresent one's work. Misconduct involves significant breaches of integrity which may take numerous forms such as, but not limited to, those outlined below:

Falsification of Data: Ranging from fabrication to deceptive selective reporting of findings and omission of conflicting data, or willful suppression and/or distortion of data with the intent to falsify results.

Plagiarism: The misappropriation of the written work of another and its misrepresentation as one's own original work.

Improprieties of Authorship: Improper assignment of credit, such as excluding other authors, inclusion of individuals as authors who have not made a definite contribution to the work published; or submission of multi authored publications without the knowledge of all authors.

Misappropriation of the ideas of others: The unauthorized use of privileged information (such as violation of confidentiality in peer review), however obtained.

Violation of Generally Accepted Research Practices: Deceptive practices in proposing, conducting, or reporting research.

Material Failure to Comply with Governmental Requirements or Contractual Agreements Affecting Research: Including but not limited to serious, substantial, or repeated, willful violations involving the use of funds, care of animals, human subjects, investigational drugs, recombinant products, new devices, radiation, or radioactive, biologic or chemical materials.

Inappropriate Behavior in Relation to Misconduct: Including unjust and malicious accusation(s) of misconduct; failure to report misconduct; withholding or destruction of information relevant to a claim of misconduct in research and scholarship; or malicious retaliation against persons involved in the allegation or investigation of misconduct in research and scholarship.

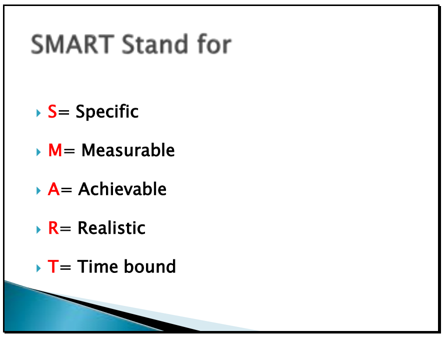
B. "Inquiry" means information gathering and initial fact finding to determine whether an allegation or apparent instance of misconduct warrants an investigation.

C. "Investigation" means the formal examination and evaluation of all relevant facts to determine if misconduct has occurred. (Source: http://www.utulsa.edu/?sc_itemid=%7B18FB6D6A-C072-4C2C-87CA-0F6BC73C57B7%7D&sc_mode=preview&sc_lang=en)

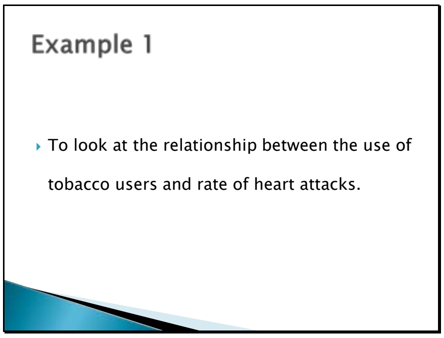
3) SMART POWERPOINT PRESENTATION

Slide 1

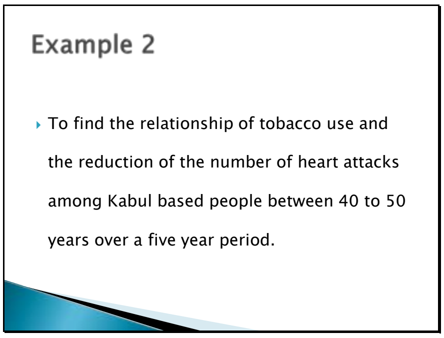
Slide 2



Slide 3



Slide 4


Example 2
To find the relationship of tobacco use and the reduction of the number of heart attacks among Kabul based people between 40 to 50 years over a five year period.

4) SAMPLE OF A LITERATURE REVIEW

The following example is taken from a paper which addressed the following topic: *Enabling (preparatory) programs into higher education play a major role in providing and enhancing educational opportunities for educationally disadvantaged students.*

Literature Review

Enabling programs are a common and successful strategy for improving educational opportunities and subsequent success for disadvantaged students in the USA (Tripodi 1994), UK (Davies & Parry 1993), New Zealand (James 1994) and Australia (Postle, Clarke & Bull 1997). In the USA these tend to be intensive summer programs offered prior to enrolment for 'at risk' 'minority' (sic) (meaning 'racial minority') students; while for the UK, New Zealand and Australia they tend to be pre-enrolment programs that facilitate access to higher education by mainly mature students who lack conventional entry qualifications, generally because of a background of disadvantage. (A distinction will be drawn here to smaller scale 'bridging programs' that address only very specific aspects of preparedness, for example, bridging Mathematics programs for enhancing the Maths skills of students entering technical fields. Although these often represent important equity initiatives, their tight focus and relatively short duration serve to distinguish them from the broader and more intensive enabling programs that are the focus of this paper.)

In an extensive study of the Scottish Wider Access (SWAP) Programs, Munn, Johnstone & Robinson (1994) noted that such access programs have been: '*remarkably successful in attracting traditionally under-represented groups in higher education*' (p.73). The need for enabling programs as an access pathway for Australian higher education is demonstrated by a consideration of retention rates to Year 12. Although secondary school completion rates significantly improved during the 1980s - with 35% of the '1961 birth cohort' completing high school by 1980, rising to 55% for the '1970 cohort' by 1989 (Williams *et al*. 1993) and rising to peak at nearly 80% during the 1990s - the legacy of the period before the mid-to-late 1980s when the majority of Australian children failed to complete secondary studies remains. There still exists a high proportion of Australian adults and a very significant proportion of young adults who lack the qualifications and level of educational preparedness generally accepted as being necessary to enter and progress through an undergraduate program with a reasonable expectation of success. It is not surprising that a high proportion of students enrolled in enabling programs are the first members of their families to attempt tertiary study and are frequently the members of recognized disadvantaged groups that are at high risk of experiencing educational disadvantage - such as the socio-economically disadvantaged, and people living in rural and geographically isolated areas (Williams *et al*. 1993; Bull & Clarke 1998). A further consideration is the likelihood that recent changes in government policy, such as those relating to Austudy and HECS entitlements, will recreate the class distinctions in higher educational opportunities. Birrell & Dobson (1997) reported that: '*Information on the class characteristics and financial support of commencing Monash students indicates that students from moderate to low income families will face increasing difficulties in accessing university places*' (p. 49). This, coupled with the easing off of high school completion rates that has been observed during the last half of the 1990s, could mean that there will be an increasing need for enabling programs in the future to address the inadequate preparedness of an increasing number of the current crops of school leavers.

As well as providing a physical access pathway for educationally disadvantaged students, enabling programs have been proven to be effective in improving future student retention and success. It is well documented that educationally disadvantaged students entering undergraduate programs from tertiary preparation courses typically perform as well as or better than their peers entering through other pathways (Beasley 1997; Lewis 1994; Tripodi 1994; Wisker, Brennan & Zeitlyn 1990). Ramsay *et al*. (1996) reported that the basis for attrition of indigenous students at the University of South Australia relate strongly to factors that can be addressed in enabling programs - 'uncertainty as to expectations in lectures and tutorials', 'poor organization of time', 'difficulties with transition into university', and 'a lack of prerequisite knowledge and basic skills'. These findings were supported by Bourke, Burden & Moore (1996) who also identified 'isolation' and 'motivational problems' as major reasons for student withdrawal that may be addressed through participation in enabling programs. These authors noted that some study within 12 months of university entry greatly reduced the risk of attrition for indigenous students. In accordance with these observations, Ramsay *et al*. (1996) reported that indigenous students entering higher education study through enabling programs often had higher success rates and lower attrition than indigenous students entering through other admissions pathways - although considerable annual variation in student performance between groups was observed. (**~750 words**)

Bibliography

Beasley, V. 1997, *Democratic Education: An examination of access and equity in Australian higher education*, A thesis submitted for the degree of Doctor of Philosophy, Faculty of Humanities and Social Sciences, University of South Australia.

Birrell & Dobson, I. 1997, 'Equity and university attendance: The Monash experience', *People and Place*, vol. 5, no. 2, pp. 49-57.

Bourke, C.J., Burden, J.K. & Moore, S. 1996, *Factors Affecting Performance of Aboriginal and Torres Strait Islander Students at Australian Universities: A case study*, Report of a study supported by the Commonwealth EIP program, AGPS, Canberra.

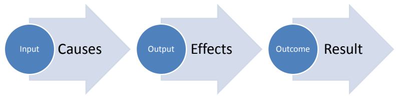
(Source: http://www.usq.edu.au/learningcentre/alsonline/assessment/assign/assigntypes/sample)

5) BUILDING AN ARGUMENT

Building Argument

Variables

Model



Variables

- Independent Variables
  - Causes of the dependent variables
  - Example:
    - Wood Stove Usage leads to increasing pollution as a result Kabul city is polluted.

Variables

- Dependent
  - Effects of the independent variable
  - Example:
    - Wood Stove Usage leads to increasing air pollution as a result Kabul city is polluted.

6) SKELETON OF AN ACADEMIC RESEARCH PAPER

Skeleton of an Academic Research Paper

Identifying Research Issue or Problem

Background of the Research Issue or Problem

Narrowing Down the Background to the Location of the Research

Stating the Research Question

Conducting a Literature Review

Stating the Research Argument

Academically Supporting the Argument by Primary and Secondary Sources (Interviews, Surveys, Scholarly Articles) "Citation"

Concluding the Research (Restating the argument whether it is proved or rejected)

Making Prediction (if no intervention occurs, what is likely to happen in the future)

Suggesting Recommendations (what does the research recommend to prevent or improve future consequences)

References (listing sources used to support or reject claims in the research)

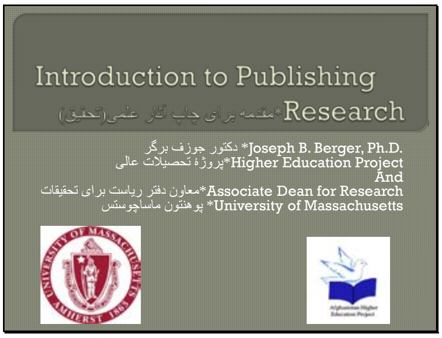
Writing an Abstract (writing a paragraph or two to summarize the intention of the research for readers)

7) QUALITATIVE VERSUS QUANTITATIVE RESEARCH

Xavier University Library

Criteria	Qualitative Research	Quantitative Research
Purpose	To understand & interpret social interactions.	To test hypotheses, look at cause & effect, & make predictions.
Group Studied	Smaller & not randomly selected.	Larger & randomly selected.
Variables	Study of the whole, not variables.	Specific variables studied
Type of Data Collected	Words, images, or objects.	Numbers and statistics.
Form of Data Collected	Qualitative data such as open- ended responses, interviews, participant observations, field notes, & reflections.	Quantitative data based on precise measurements using structured & validated data-collection instruments.
Type of Data Analysis	Identify patterns, features, themes.	Identify statistical relationships.
Objectivity and Subjectivity	Subjectivity is expected.	Objectivity is critical.
Role of Researcher	Researcher & their biases may be known to in the study, & participant characteristics may be known to the researcher.	Researcher & their biases are not known to in the study, & participant characteristics are deliberately hidden from the researcher (double blind studies).
Results	Particular or specialized findings that is less generalizable.	Generalizable findings that can be applied to other populations.
Scientific Method	Exploratory or bottom–up: the researcher generates a new hypothesis and theory from the data collected.	Confirmatory or top-down: the researcher tests the hypothesis and theory with the data.
View of Human Behavior	Dynamic, situational, social, & personal.	Regular & predictable.
Most Common Research Objectives	Explore, discover, & construct.	Describe, explain, & predict.
Focus	Wide-angle lens; examines the breadth & depth of phenomena.	Narrow-angle lens; tests a specific hypotheses.
Nature of Observation	Study behavior in a natural environment.	Study behavior under controlled conditions; isolate causal effects.
Nature of Reality	Multiple realities; subjective.	Single reality; objective.
Final Report	Narrative report with contextual description & direct quotations from research .	Statistical report with correlations, comparisons of means, & statistical significance of findings.

8) PUBLICATION SKILLS BY HEP



Title and Abstract*عنوان و خلاصه

- Title should be specific and it must clearly identify the topic *عنوان باید خاص و موضوع را روشن سازد
  - Include Author(s) name(s), title(s) and contact information*مشتمل اسم(اسم ها) نویسنده(نویسندگان)و معلومات ارتباطی
- Abstract (usually less than 250 words) خلاصه (عموماً کمتر از 250 کلمه است)
  - State the principal objectives and scope of the research *اهداف اصلی و حدود تحقیق باید توضیح شود
  - Describe the methodology employed*میتودولوژی باید توضیح شود
  - Summarize results and findings *نتایج و یافته ها باید خلاصه شوند
  - State the principal conclusions *نتایج اصلی باید توضیح شوند

Introduction/Statement of the Problem*مقدمه / توضیح مسأله

- The introduction supplies background information and a rationale for the study. مقدمه معلومات راجع به سابقهٔ تحقیق و منطقی بودن آن ارائه می کند
  - **Identify the topic** **شناسائی موضوع**
    - What is the problem? مسأله چه است ؟
    - What is the purpose of your paper? مفهوم و منظور مقاله چیست؟ What is the research question? سؤال تحقیق چه است ؟
  - **Make a compelling case** **موضوع باید دلچسپ باشد**
    - What is the scope of the problem? Frame in terms
    - of surpluses/deficits

حدود مسأله چه است؟ چهارچوب تحقیق باید شامل مطالب اصلی و اضافی باشد

Introduction/Statement of the Problem*مقدمه / توضیح مسأله

- **Provide historical and national context** باید زمینهٔ تاریخی و ملی را در نظر بگیرید
  - What is unique about this time and place? چه چیزی در ارتباط زمان و محل بی نظیر است
- **Identify key stakeholders** **شناسائی افراد ذیعلاقه**
  - Who is affected? کی تحت تأثیر قرار می گیرد؟
  - How? چطور؟
- **Discuss significance** **اهمیت تحقیق باید بحث شود**
  - Why is it important? چرا اهمیت دارد؟

Review of Literature *پیشینه

- Provide an overview of existing research
  یک نظر اجمالی دربارهٔ تحقیقات فعلی بدهید
- Identify existing studies on the topic
  شناسائی تحقیقات فعلی بر موضوع
- Organize materials مواد را ترتیب کنید
- Use literature to make a compelling case as to

How your research adds to existing knowledge

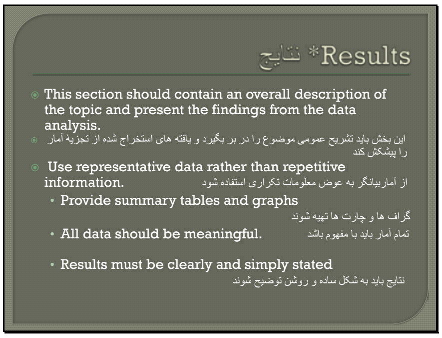
از پیشینه باید قسمی استفاده شود که تحقیق شما بر دانش فعلی به چه شکل می افزاید و یا تأثیر گذار است

Method* میتود/ روش

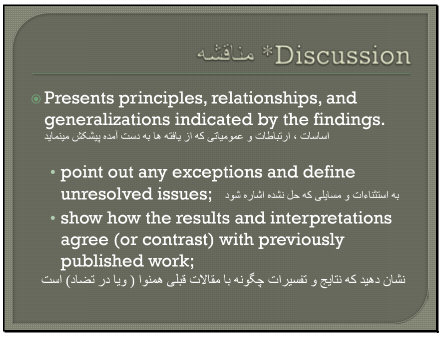
- **Participants** **اشتراک کننده گان**
  - Who is the sample? نمونه کی است؟
  - Why were they selected as data sources?
    چرا آنها برای جمع آوری آمار انتخاب شده اند؟
- **Instruments/Materials** وسایل و مواد
  - What tools were used to collect data?
    از کدام وسایل برای جمع آوری آمار استفاده شده است؟
  - Tests? آزمایشات
  - Surveys? ارزیابی از طریق سروی
  - Interviews? مصاحبه ها؟
  - Databases? پایگاه داده ها؟
  - Others? دیگر؟

Method* میتود

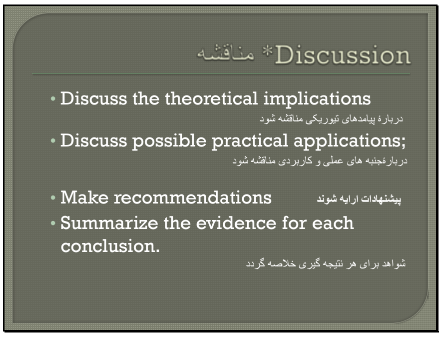
- **Design** **طرح**
  - What types of measures and variables are used? چه نوع اندازه گیری و از کدام متغیر استفاده شده است؟
- **Procedure** طرز العمل
  - How were the data collected and analyzed?)
    آمار چگونه جمع آوری و تجزیه شده است؟



نتایج *Results
This section should contain an overall description of the topic and present the findings from the data analysis.
این بخش باید تشریح عمومی موضوع را در بر بگیرد و یافته های استخراج شده از تجزیهٔ آمار را پیشکش کند
Use representative data rather than repetitive information.
از آماربیانگر به عوض معلومات تکراری استفاده شود
Provide summary tables and graphs
گراف ها و چارت ها تهیه شوند
All data should be meaningful.
تمام آمار باید با مفهوم باشد
Results must be clearly and simply stated
نتایج باید به شکل ساده و روشن توضیح شوند



مناقشه *Discussion
Presents principles, relationships, and generalizations indicated by the findings.
اساسات ، ارتباطات و عمومیاتی که از یافته ها به دست آمده پیشکش مینماید
point out any exceptions and define unresolved issues;
به استثناءات و مسایلی که حل نشده اشاره شود
show how the results and interpretations agree (or contrast) with previously published work;
نشان دهید که نتایج و تفسیرات چگونه با مقالات قبلی همنوا (ویا در تضاد) است



مناقشه *Discussion
Discuss the theoretical implications
دربارهٔ پیامدهای تیوریکی مناقشه شود
Discuss possible practical applications;
دربارهٔجنبه های عملی و کاربردی مناقشه شود
Make recommendations
پیشنهادات ارایه شوند
Summarize the evidence for each conclusion.
شواهد برای هر نتیجه گیری خلاصه گردد

*Conclusion نتیجه

- The discussion section should end with a short summary or conclusion that answers the research question.
  مناقشه باید با یک خلاصهٔ کوتاه و یا یک نتیجه یی که به سؤال تحقیق / مسأله تحقیق جواب دهد ، ختم گردد.

*References مأخذ

- Only cite significant, published references.
  تنها مأخذ عمدهٔ چاپ شده را تذکر دهید
- Verify that all references in the text are listed in the reference section.
  اطمینان حاصل نمایید که تمام مأخذ مقاله در متن مآخذ موجوداند
- Stylistically, authors should utilize the in-text parenthetical reference system with complete references alphabetized at the end of the text.
  از نگاه نگارش نویسندگان باید تنها از سیستم مأخذ داخل قوس با توجه به ترتیب الفبا در اخیر مقاله استفاده کنند

*Choosing A Topic انتخاب یک موضوع

- What is a topic that interests you?
  یک موضوع دلچسپ برای شما چی است؟
- Why is it important? چرا اهمیت دارد؟
- What are key terms and concepts related to the topic? کلمات کلیدی و مفاهیمی که بر موضوع ارتباط دارند ، کدام اند؟
  What is the statement of purpose for your paper? جمله یی که مفهوم موضوع را در مقاله اظهار کند چی است؟
- What is the research question?
  سؤال تحقیق چه است؟


آمادگی یک مسوده*Preparing a Manuscript
Identify a Topic
شناسائی موضوع
Identify a Journal
شناسائی مجلهٔ علمی
Conduct Review of Literature
پیشینه انجام می باید
Collect and Analyze Data
آمار جمع آوری و تجزیه می شود


Preparing a Manuscript
آماده گی ساختن مسوده
Develop an Outline
انکشاف شکل اجمالی
Create a Writing Schedule
تقسیم اوقات نوشتن
Get Feedback from Colleagues
نظر خواهی از همکاران
Proofrea
ویرایش
Submit for Publication
تسلیمی اثر برای چاپ