

Faculty of Letters and Languages-M'sila

Department of English

Level: Second year license

Course: Research Methodology.

Lecture: The Nature of Research

Lecture number: 01

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I-The Nature of Research

1-The Etymology and Objectives of Research

Research (Noun): It emerged in the 1570s, from the Old French term *Recerche* (modern day French: Recherche) which meant: the act of searching closely. The verb Research emerged in the 1590s, from the Old French verb *Recercher* which meant: “seek out, or search closely.”

The modern use of the term **Research** refers to: A study or an investigation aiming at discovering new information (knowledge of new facts).

2-Ways of Knowing

A-Sensory Experience:

We see, we hear, we smell, we taste, and we touch. Most of us have seen fireworks on wedding nights, heard the buzz of a jet airplane's engines overhead, smelled a rose, tasted chocolate ice cream, and felt the wetness of a rainy day. The information we take in from the world through our senses is the most immediate way we have of knowing something. **However**, many experiments in sensory perception have revealed that we are not always wise to trust our senses too completely. Our senses can (and often do) deceive us: The gunshot we hear becomes a tire exploding; the water we see in the road ahead is but a mirage; the chicken we thought we tasted turns out to be a rabbit. Sensory knowledge is undependable; it is also

incomplete. The data we take in through our senses do not account for all (or even most) of what we seem to feel is the range of human knowing. To obtain reliable knowledge, therefore, we cannot rely on our senses alone but must check what we think we know with other sources.

B-Agreement with Others:

One such source is the opinions of others. Not only can we share our sensations with others, we can also check on the accuracy and authenticity of these sensations: Does this soup taste salty to you? Isn't that John over there? Did you hear someone cry for help? Smells like mustard, doesn't it? Obviously, there is a great advantage to checking with others about whether they see or hear what we do. It can help us discard what is untrue and manage our lives more intelligently by focusing on what is true. **However**, the problem with such common knowledge is that it, too, can be wrong. A majority vote of a committee is no guarantee of the truth. My friends might be wrong about the presence of an approaching automobile, or the automobile they hear may be moving away from rather than toward us. Two groups of eyewitnesses to an accident may disagree as to which driver was at fault. Hence, we need to consider some additional ways to obtain reliable knowledge.

C-Expert Opinion:

Perhaps there are particular individuals we should consult—experts in their field, people who know a great deal about what we are interested in finding out. We are likely to believe a noted heart specialist, for example, if he says that uncle Aissa has a bad heart. Surely, a person with a PhD in economics knows more than most of us do about what makes the economy tick. And shouldn't we believe our family dentist if he tells us that back tooth has to be pulled? **However**, experts, like all of us, can be mistaken. For all their study and training, what experts know is still based primarily on what they have learned from reading

and thinking, from listening to and observing others, and from their own experience. No expert, however, has studied or experienced all there is to know in a given field, and thus even an expert can never be totally sure. All any expert can do is give us an opinion based on what he or she knows, and no matter how much this is, it is never all there is to know.

D- Logic:

We also know things logically. Our intellect—our capability to reason things out—allows us to use sensory data to develop a new kind of knowledge. Consider the famous **syllogism**:

All human beings are mortal.

Salim is a human being.

Therefore, Salim is mortal.

To assert the first statement (called the **major premise**), we need only generalize from our experience about the mortality of individuals. We have never experienced anyone who was not mortal, so we state that all human beings are. The second statement (called the **minor premise**) is based entirely on sensory experience. We come in contact with Salim and classify him as a human being. We don't have to rely on our senses, then, to know that the third statement (called the **conclusion**) must be true. Logic tells us it is. As long as the first two statements are true, the third statement must be true. (**Syllogism**: is a kind of logical argument that applies deductive reasoning to arrive at a conclusion based on two or more propositions (premises) that are asserted or assumed to be true.) **However**, There is a fundamental danger in logical reasoning: It is only when the major and minor premises of a syllogism are *both* true that the conclusion is guaranteed to be true. If either of the premises is false, the conclusion may or may not be true.

E-The Scientific Method:

When many people hear the word *science*, they think of things like white lab coats, laboratories, test tubes, or space exploration. Scientists are people who know a lot, and the term *science* suggests a tremendous body of knowledge. What we are interested in here, however, is science as a method of knowing. It is the **scientific method** that is important to researchers. What is this method? Essentially it involves “**testing** ideas in the public arena.” Almost all of us humans are capable of making connections—of seeing relationships and associations—among the sensory information we experience. Most of us then identify these connections as “**facts**”—items of knowledge about the world in which we live. We want to stress two crucial features of scientific research: freedom of thought and public procedures. At every step, it is crucial that the researcher be as open as humanly possible to alternative ways of focusing and clarifying the problem, collecting and analyzing information, and interpreting results. Further, the process must be as public as possible. It is not a private game to be played by a group of insiders. The value of scientific research is that it can be **replicated** (i.e., repeated) by anyone interested in doing so. The general order of the scientific method, then, is as follows:

- 1-Identifying a problem or question
- 2-Clarifying the problem
- 3-Determining the information needed and how to obtain it
- 4-Organizing the information
- 5-Interpreting the results

Conclusion

In short, the essence of all research originates in **curiosity**—a desire to find out how and why things happen, including why people do the things they do, as well as whether or not certain ways of doing things work better than others.

References

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