Research Methods in Islamic Sciences

Man's curiosity is the origin of all human knowledge. Knowledge refers to bodies of facts and hypotheses that enables one to understand phenomena and to solve problems. Islam actively immensely encourages Muslims to seek knowledge. The Almighty Allah in almost every page of the holy Quran praises knowledge and invites people to seek and learn the truth. Seeking knowledge in Islam is an obligation upon every Muslim. Therefore, a mature Muslim must personally seek the truth in the matter of principles in his/her religion.

Nonetheless, in early times a large body of human understanding was based on unsystematic, unreliable and unverified sources. The inadequacies of accumulating knowledge through these sources forced scholars to develop what is presently known as 'scientific methods in research'.

1) Research Methods': Etymology and Definition'

The term 'research' in English is from a French term 'recercher' to seek. The Oxford English dictionary defines research as: "the study of materials and sources in order to establish facts and reach new conclusion."

The term used in Arabic is 'al Bahth' which means to search. It is also called 'al-Tahqiq' which is derived (driven) from the root 'Haqqaqa', to discover and confirm the truth. Therefore, research is a diligent and systematic inquiry or investigation into a subject in order to discover a truth or revise facts.

What is a 'Research Method'?

By a research method we mean the logic of research. Formal logic is the methodology of correct thinking, which when utilized protects the mind from incorrect thinking. Similarly a research method is the logic of correct research. Thus, formal logic is the method of correct thinking, and applied logic is the method of correct research.

2) Characteristics of a Researcher

A learned person is not necessarily a researcher. Often we meet people with a vast amount of information on various topics. They look like a mobile encyclopaedia. However, they don't have any systematic approach to acquiring knowledge about any topic. Thus, if they are asked to

deliver a lecture or write an article on a particular topic they fail.

Francis Bacon, English philosopher of the 17th century says in his book 'The New Method', that scholars with no systematically attained knowledge are like ants who collect data together in heaps without ever giving a unifying structure to them whereas philosophers are like spiders spinning out their own ideas in their webs.

It is only a true researcher who is like a bee extracting matter from the flowers of different gardens and fields but works and fashions it to produce a sweet honey.

A researcher must enjoy the following characteristics:

1) Knowledgeable: A researcher must have a solid, general knowledge about the topic he researches about. For instance, if he wishes to conduct research on a particular jurisprudential topic he must have a fair knowledge of Fiqh and its related sciences. He should also be familiar with jurisprudential terminologies to understand and interpret jurisprudential texts.

A researcher needs to be aware of the historical background of the topic and research previously conducted. This will help the researcher to avoid duplication on the one hand whilst expanding the scope of the previous researches and clarifying their validity.

2) Experienced: driving skills and so is researching. The more you conduct the research the more skilful you natural become.

3) Sharp: A researcher is sharp and insightful. He is very aware of what happens around him. For instance, for several centuries millions of people had observed apples falling from an apple tree but they were oblivious to the force that caused it to fall. It was only Newton whose sharp mind noted the law of gravity by observing the fall of a mere apple.

4) Free-thinker: A researcher is free from his personal social beliefs and superstitions. When conducting research he independently examines the validity of every statement irrespective of the beliefs of his society.

5) Considers the speech not the speaker: Often renowned scholars makes false statements just as laymen utter the truth. The status of the speaker does not make a speech necessarily true or false. The Imams of Ahlul-Bayt (a.s), though not very often, quoted poems of Jahiliyyah.

In the past, our Muslim scholars have been known to criticise an opinion, however they would not mention the name of the scholar, especially if that scholar was one of their contemporaries. The scholars consider mentioning the names unimportant as it was the statement that had to be examined not the speaker. This also avoided belittling the scholar.

6) Brave: Often the result of research is contrary to the opinion of the mainstream academic society. In order to freely express the findings of his research, a researcher must be brave and

confident. A scientific research is based on compelling evidence, not the approval of the majority.

7) Fair: A researcher is fair in his judgment. When examining a statement he considers all its possible meanings. His quotation of other opinions is not limited to disagreements and criticism. He also acknowledges the interesting findings of other scholars.

8) Honest: A researcher must be honest when quoting from other sources. An incomplete quotation or misquotation of an author is an academic dishonesty. Plagiarism is also a serious offence in today's academic world and is a clear sign of dishonesty.

3) Benefits of a Scientific Research

Research remains a fresh tree of human knowledge. Unlike the misconception of 'the early scholars left nothing for the latter (to discover)', al-Jahiz (the famous critical Arab linguist who died in 255 AH) correctly said: 'The early scholars have left much for the latter ones (to discover). The following are but some benefits of scientific research:

o Satisfaction of the human sense of curiosity. For a researcher nothing is more pleasurable than finding the solution to his problem. Thus, Khaje Naseeru-Din al Tousi (died 672 AH), the renowned Muslim mathematician, astronomer and philosopher when finding a solution for his scientific problem would cry:

اين الملوک و ابناء الملوک من هذه اللذة.

Where are the kings and the princes to taste this pleasure?' The anecdote of the Golden') Crown is another famous example in the life of Archimedes, the ancient Greek mathematician. When he discovered that the density of the crown would be lower than that of gold if cheaper and less dense metals had been added, he was so excited that he stepped out of the public bath forgetting to dress crying: "Eureka!" (I found it)!

Freedom from partial opinions and wrong assumptions

Reforming the currently accepted but wrong values

Reviving knowledge and expansion of its life

Forcing opinions to be more scientific

Disclosing false opinions

Foretelling future events in order to prevent catastrophes and to minimize mistakes.

Types of Research (4

The nature of research can be divided into two main types, descriptive and prescriptive research. Descriptive research aims at collecting and quoting all different opinions in the discussed topic without analysing them. With descriptive methodology, the researcher narrates the information without judgment, whereas in prescriptive methodology he analyses the data and suggests his opinion.

Research in terms of people involved in it, is either individual or group. In group research a team of researchers conduct the research.

Conditions of a Group Research

Unity in objective,

Unity in method,

Identification of the job description of each member,

Cooperation between members,

Consideration of other members' opinions and avoiding self-centredness,

Appointing a team leader.

Advantages of a Group Research

Scope is usually wider and more comprehensive,

Research is more critical,

Results are more scientific and reliable.

Disadvantages of a Group Research

Progress is usually slower,

Inactivity of a member can stagnate the project.o

Tools of a Research (5

Language

Library: books, periodicals, audio visual materials

Questionnaire

Supervisor

Principles of a Scientific Research (6

1. Begins with a philosophical doubt and continues until it converts to certainty,
2. Is systematic and follows pre-established rules and regulations.
3. Is fair and impartial
4. Has a specified topic
5. Has clear objectives
6. Is well- documented
7. Aims at discovering the truth
8. Is replicable, and hence its validity can be examined.
9. Relies only on facts and reliable evidence. No research is scientific unless it is supported by adequate compelling evidence.

Methods of a Research (7

There are five methods of research in different Islamic sciences:

1. Rational method, as used in philosophical texts of Ibn Sina (died 428 AH).
2. Narrative method, as used in history, the science of al-Rejaal, jurisprudence, etc.
3. Intuitive method, as used in mysticism.
4. Common sense method, as used in the science of principles of jurisprudence.
5. Combined method, which is the combination of some or all of the above methods. For instance, the methodology of Khaje Naseeru-Din al Tousi in his 'Tajridul-E'teqad' (Purification of the Belief) in theology is a combination of philosophical and narrative methods. Similarly, Mulla Sadra (died 1050 AH) in al-Asfar (the Books) has combined all methods of research.

Stages of Research (8

1. Select a topic;
2. Explain the topic and its key terms;
3. Study the historical background and the previous research on the topic;
4. Identify sources and references;
5. Proposal;
6. Collect relevant data;
7. Logical classification of the data;
8. Analysis of the data;
9. Conclusion;

.10. Compilation of the thesis

Scientific Method of Studying (9

1. Identify primary and the secondary sources.
2. Examine the genuineness of the sources. For example, make sure the printed copy of an ancient book is genuine and the best available copy.
3. Take precise and documented notes of the important points.
4. Choose the suitable time for studying.
5. Stop, revive, survive, otherwise the quality of one's understanding diminishes.
6. Choose a quiet and comfortable place to enhance your concentration.
7. Restrict your studying to the topic and its relevant subjects.
.8. Read carefully and comprehensively to make sure you understand the text

Scientific Method of Compiling a Thesis (10

In short, a thesis may be analysed into three S's: Structure, Substance, and Style. Structure confers logical coherence. Substance is the significance and depth of a thesis and style is the elegance of the thesis and its grammatical appeal. In order to achieve this one must follow the following rules:

1. Be explicit and clear.
2. Narrow down the title.
3. Write down the title and your name in full.
4. Introduce the key words
5. Open the thesis with a catchy summary of your thesis in a paragraph. When compiling a book a brief introduction can present the summary of the book. Some authors summarize their works at the end of their thesis. While this is a useful ending, opening the thesis with a nice summary will entice the reader to your thesis.
6. Have two tables of contents; one stating the main headings (chapters), and the second a more detailed table of contents.
7. Acknowledge all those who help you in compiling your thesis.
8. Write the body of your thesis in a systematic, logical order.
9. Have a bibliography for your work and state all your references and sources. Indicate, the author, the full name of the source, the publisher and the date of publication.
10. Make sure you have your thesis edited. Even the best writers are often oblivious of their

mistakes.

.11. It is an advantage to compile a table of places, persons, Ayaat, Ahadeeth, etc