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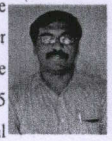

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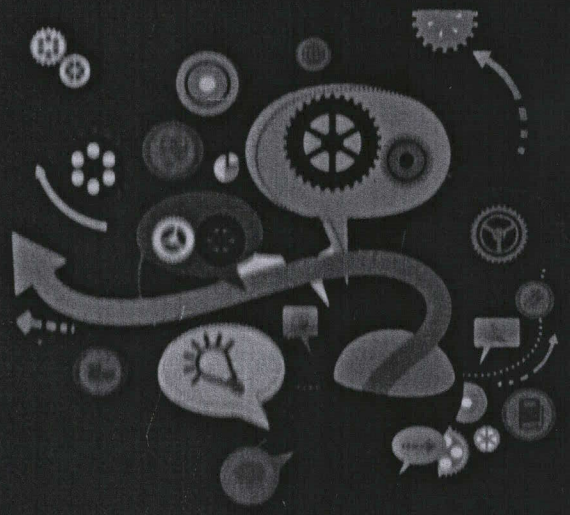

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CONTENT

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Rev. Dr. I. Jesudoss, SJ.

Introduction

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Research is required in any field to come up with new theories to modify, accept, or nullify the existing theory. According to Advanced Learner's Dictionary, Research is 'a careful investigation or inquiry specially through search for new facts in any branch of knowledge'. Redman and Mory define Research as,' a systematized effort to gain new knowledge.'

Objectives of Research

Research attempts to achieve new insights into the problem and discover facts which are existing in the world. It invents new solutions to the problems. Research highlights the significance of the phenomenon under study and develops new tools, concepts and theories for a better study. Also it tests the hypothesis of casual relationship between variables and writes the report based upon the findings of the research. Research aims, at planning and thus contributes to national development.

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research when they systematically assemble information about schools, school children, the social matrix in which a school system is determined, the characteristics of the learner or the interaction between the school and pupils.

Following are the Steps of Educational Research

1. *Identification and definition of the problem:* Research problem is selected either by surveying the literature or by the experience when the researcher comes across a problem in actual situation and to be stated in definite and clear terms.
2. *Formulation of Hypothesis:* Hypothesis is nothing but a tentative solution of the problem. The relationship between various variables is understood by these hypotheses. They determine the direction of collecting data.
3. *Clarification of research procedure:* This refers to the general strategy to be followed in collecting and analyzing the data. The research method depends on the nature of problem under study and type of data required.
4. *Collection of Data:* The method or technique to be used for collecting data is clarified here. First of all, sample is chosen and then research tools such as questionnaire, test, interview, etc. are used in the sample.
5. *Analysis and interpretation of Data:* At this step, data are first arranged in systematic form, and then they are analyzed and interpreted in the context of hypotheses. Appropriate quantitative as well as qualitative techniques are used for processing the data.
6. *Drawing conclusions and development of theory and principles:* This is the final step where conclusions are drawn on the basis of results and laws or generalizations are developed.

After discussing on the meaning of research, Let us now discuss specifically about research problems, its selection and formulation.

A Research Problem

A research problem in general refers to some theoretical or practical situation requiring solution. A research problem should be selected very carefully. The subject matter of research should be of

interest to the researcher. The purpose of a researcher must be to find out the solution for the given problem.

Defining the Research Problem

This involves laying down the limits within which the research work will be carried out keeping in view the determined objectives. Stating the problem in a general way, surveying the relevant literature, and developing proper understanding through discussions, consultations and finally defining the problem in an appropriate manner.

Identification of the Research Problem

Identification of a problem does not mean to select a topic of a research or statement of the problem. A topic or statement of the problem is not synonymous to research problem. Thus identification of a research problem is a difficult task. The help of an experienced research guide is essential in solving this problem. The researchers themselves should finalize their own topic for their research problem after having a thorough discussion with the experts and guides.

Problem Formulation

A fundamental question that an educational researcher should ask for himself is: What do I want to find out? The researcher should find a satisfactory answer for this question. This question posing challenges him to learn, to explain, to predict, to experiment, to observe and to expand his knowledge horizon. The researcher's formulation of problem is simplified with the posing of question. It facilitates selection and formulation of the research problem. All the follow-up actions and research sub-processes are affected with the simplification of the research problem. The sample, precise phrasing of research problem further helps in the process of analysis. Julian L. Simon, in his book 'Basic Research Methods in Social Science', says emphatically, "No matter what type of problem you want to work on and no matter what methods you will eventually use, your empirical work must begin with a careful consideration of the research problem".

Important Sources of Research Problems

Various sources of research problems are the following:

i. Theory of researcher's own interest

A researcher can select his research title from his own area of interest or the field in which he has some theoretical knowledge. A researcher can select his research title from his own area of interest or the field in which he has some theoretical knowledge. A research scholar who is interested in human values, can select a topic related to value education in the schools, different value dimensions found in students, inculcation of values among the high school students, etc.

ii. Academic experience

Classroom lectures, discussions, seminars, symposiums and exchange of ideas with seniors and fellow students enlighten the researcher on the identification of the problem.

iii. Problems concerning with day to day activities

A researcher can select his research title from the problems he faces in his life everyday. A researcher can also select his research title from the day to day activities which benefit or harm the society. For instance, a researcher can induige in the following activities:

- A study on the causes of the wastage and stagnation in rural primary schools.
- A study on the poor performance in English language of high school students in Tamilnadu.
- A study on the poor achievement of boys in comparison to the girls of twelfth class in Tamilnadu.

iv. Social changes

Technological and sociological changes bring forth new problems and thus new avenues for research. Examples for technological and social changes are the following:

- A study on the impact of Blended learning in schools of Palayamkottai Educational area.
- A comparative study of online classroom Vs traditional classroom in high schools of Tamilnadu.
- A comparative study of lecture method Vs dialogue method in teaching-learning process.

v. Doubts about present practices

The investigator may be dissatisfied with many of the present practices and tradition. So he may select such a problem that can help him to adopt new practice after research. A few examples can be cited as follows:

- A study on the emerging leadership styles among college principals in Tirunelveli area.
- A study on the impact of e-learning of college students.
- Causes for the sudden high scores of government school students in Tamilnadu public examinations.

vi. Survey of the literature

The investigator can study a number of related literatures like books, journals, newspapers, research reports etc, to find out a problem. Educational surveys will also help to find new topics for research.

vii. Professional experiences

Classrooms, school, community etc. are the places where researcher might have come across a number of conflicting experiences and difficulties. He will find the solutions to these problems through his research. Examples of this type are the following:

- A study on the impact of parental involvement on the academic achievement of High school students.
- A study on the impact of personal values on the communicative behaviour of teacher trainees.

viii. Research

Research on a problem may suggest problems for further research. For an example, the study on 'The influence of well-being on the self-efficacy of B.Ed. trainees' can be extended to "A study on the influence of well-being on the self-efficacy of primary teachers".

Various Types of Research Problems in Education

i. Empirical problems

In empirical problems, the social researchers answer questions or solve problems or offer suggestions on the basis of their findings to verify accept or reject relationship among the variables.

ii. Analytical problems

Analytical problems are merely definitional and not empirical. These are essentially linguistic and conceptual problems. The answers to these problems depend on the meaning of the words in the sentences expressing them.

iii. Normative problems

Normative problems, questions the answers of which depend primarily on value judgements. These may take either an evaluative or prescriptive form.

Evaluation of the Research Problem

Before starting the actual research, the researcher needs to find the answers for the following questions:

i. Is the problem researchable?

There may be many problems that cannot be solved through the process of research. For an example," Is it good to provide sex education to secondary class students?". This problem is based on personal values. Science cannot provide answer to this question. A Problem must establish relationship between two or more variables. Hence the above problem can be studied in the following manner... 'Effects of sex education on social life of girls' and boys'.

ii. Is the problem new?

A problem has to be new in all aspects. The researcher must avoid duplication. A research may be repeated on two grounds only to verify the previous conclusions and to extend its applicability in an entirely new situation.

iii. Is the problem significant?

The problem selected must be useful to the society. It must add new knowledge to the existing one and this knowledge should be valuable.

iv. Is the problem feasible for the researcher?

It may be a good one, but may not be feasible for the researcher due to its high cost, too lengthy to complete in the stipulated time, incompetency of the researcher.

Criteria of a Good Research Problem

- The problem should express the relationship between two or mor variables.
- The problem should be related clearly and unambiguously in th form of questions.
- There must be possibilities for empirical verification and testing.
- Availability of a suitable guide and approval of the topic from th competent authority.
- The research problem should be novel and original one.
- It should be neither too narrow nor vague.
- A good research problem should enrich knowledge or improv the current practices.

Statement of Problem

A research problem is a statement about an area of concern, condition to be improved upon, a difficulty to be eliminated, or a troublin question that exists in scholarly literature, in theory, or in practice thos points to the need for meaningful understanding and deliberat investigation. A research problem does not state how to do somethin offer a vague or broad proposition, or present a value question.

The purpose of a problem statement is to,

i. Introduce the reader to the importance of the topic being studie The reader is oriented to the significance of the study and th research questions or hypotheses to follow.

ii. Place the problem into a particular context that defines th parameters of what is to be investigated.

iii. Provide the framework for reporting the results and indicates wh is probably necessary to conduct the study and explain how th findings will present this information.

The problem statements should possess the following attributes,

- Clarity and precision (a well-written statement does not mak sweeping generalizations and irresponsible statements).

- Demonstrate a researchable topic or issue (i.e.feasibility of conducting the study is based upon access to information that can be effectively acquired, interpreted, synthesized, and understood).
- Identification of what would be studied, while avoiding the use of value-laden words and terms.
- Identification of an overarching question or small set of questions accompanied by key factors or variables.
- Identification of key concepts and terms.
- Articulation of the study's boundaries or parameters or limitations.
- Some generalizability in regards to applicability and bringing results into general use.
- Conveyance of the study's importance, benefits, and justification (i.e. regardless of the type of research, it is important to demonstrate that the research is not trivial).
- Does not have unnecessary jargon or overly complex sentence constructions.
- Conveyance of more than the mere gathering of descriptive data providing only a snapshot of the issue or phenomenon under investigation.

Before beginning your paper, you need to decide how you plan to design the study

The research design refers to the overall strategy that you choose to integrate the different components of the study in a coherent and logical way, thereby, ensuring you will effectively address the research problem; it constitutes the blueprint for the collection, measurement, and analysis of data. Note that your research problem determines the type of design you should use, not the other way around.

The function of a research design is to ensure that the evidence obtained enables you to effectively address the research problem logically and as unambiguously as possible. In social sciences research, obtaining information relevant to the research problem generally entails specifying the type of evidence needed to test a theory, to evaluate a program, or to accurately describe and assess meaning related to an observable phenomenon.

With this in mind, a common mistake made by researchers is that they begin their investigations far too early, before they have thought critically about what information is required to address the study's research questions. Without attending to these design issues beforehand, the overall research problem will not be adequately addressed and any conclusions drawn will risk being weak and unconvincing. As a consequence, the overall validity of the study will be undermined.

Given this, the length and complexity of describing research designs in your paper can vary considerably, but any well-developed design will achieve the following:

i. Identify the research problem clearly and justify its selection, particularly in relation to any valid alternative designs that could have been used.

ii. Review and synthesize previously published literature associated with the problem.

iii. Clearly and explicitly specify hypotheses (i.e. research questions) central to the research problem.

iv. Effectively describe the data which will be necessary for an adequate testing of the hypotheses and explain how such data will be obtained.

v. Describe the methods of analysis to be applied to the data in determining whether or not the hypotheses are true or false.

Conclusion

The research scholar, who is active in research is usually finds a lot of research problems. Experts who are recognized as research guides normally suggest the area of research work at different centres. The more one knows about a particular field, the more capable he becomes to identify the gaps in it and recognize the researchable problems for investigation.