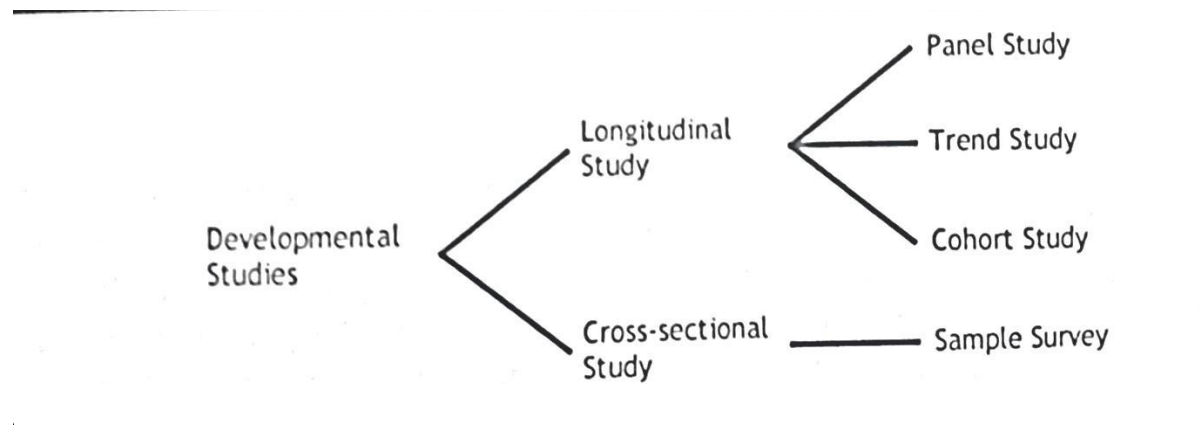


## **Developmental research**

Developmental research is conducted for the purpose of predicting future trends. It concentrates on the study of variables, their rates of change, direction, sequences and other inter-related factors over a period of time, there are several methods of developmental research. The nature of these different forms of developmental research design is shown in the following figure:



### **Longitudinal Study**

It is a research where phenomena are studied over time either continuously or repeatedly. This type of study measures the nature and rate of change in a sample at different stages of development. This occurs when the data are collected in two or more points in time from the same group of individuals. Because data are gathered in two different points in time, it is not a cross-sectional or a one-shot study, but it is a study carried longitudinally across a period of time. The phenomena are studied over time either continuously or repeatedly. Longitudinal studies are mostly quantitative.

### **Trend Study**

The trend study is probably the most common longitudinal study among others. When the data are collected at intervals spread over a period of time, it is called a trend study. This type of research samples are different groups of people at different points in time from the same population. It is designed to establish patterns of change in the past in order to predict future patterns or conditions. A trend study thus provides information about net changes at an aggregate level. It can establish a pattern over time to detect shifts and changes in some event. Marketing firms, for example, compile trend studies that chart fluctuations in consumption level for a certain product. Trend studies do not have to be conducted by just one researcher or research project. You may combine data from several studies of the same population in order to show a

trend. This type of study is particularly used to obtain and analyze social, economic, and political data to identify trends and to predict what is likely to take place in the future. Frequently regression analysis is used for trend studies.

### **Cohort Study**

A cohort is a group of people who share a common characteristic or experience within a defined period. Thus, cohort study is a study of a specific group, such as those born on a day or in the particular period, say in the year 2003. This group then forms a birth cohort or a kindergarten cohort. Similarly, a group of students graduating from college in a year form a student cohort. There are many other kinds of cohorts, including disease, education, employment, housing, family formation, and the like.

A sample of the selected cohort group is then studied at different points of time. A cohort study is thus a systematic follow-up of a group of people for a defined period of time or until a specified event. To form cohort studies, data are compiled for the same population over time. Such studies are therefore rare because of the difficulty of maintaining contact with members of the cohort from year to year.

### **Panel Study**

A panel is a group of individuals that have agreed to provide information to a researcher over a period of time. In panel study we take the same people and study their attitudes towards a particular phenomenon over time. Panel studies are most useful when studying change. These studies allow the researcher to find out why changes in the population are occurring. They measure the same sample of respondents at different points in time. For example, if we were interested in finding out the general attitude towards single parenthood, we would take a group of people and interview them at periodic intervals on the same subject and over a number of years. Unlike trend studies, panel studies can reveal both net change and gross change in the dependent variable. Additionally, panel studies can reveal shifting attitudes and patterns of behavior. Depending on the purpose of the study, you can use either a continuous panel (the same respondents reporting on a regular basis) or an interval panel (reporting only when the information is needed). Panel data are particularly useful in predicting long-term or cumulative effects which are difficult to analyze in a cross-sectional study.

### **Cross-sectional Study**

Cross-sectional study involves observation of some items of the population all at the same time. This study basically measures the rates of changes by drawing samples from a cross-section of society. It focuses on comparing and describing groups. In this study, data are gathered just once, perhaps over a period of time, in order to answer a research question. Such studies are also known as one-shot studies. Cross-sectional studies often employ the survey strategy. The fundamental difference between a cross-sectional study and longitudinal study is that a cross-

sectional study takes place at a single point of time and that a longitudinal study involves a series of measurements taken over a period of time.

### **Characteristics of Development Research**

- Developmental research focuses on the study of variables and their development over a period of months or years. It asks, "What are the patterns of growth, their rates, their directions, their sequences, and the interrelated factors affecting these characteristics?"
- The sampling problem in the longitudinal method is complicated by the limited number of subjects it can follow over the years; any selected factor affecting attrition (decreasing) biases the longitudinal study.
- The longitudinal method does not lend itself to improvements in techniques without losing the continuity of staff and financial support over an extended period of time and typically is confined to university or foundation centers that can maintain such an effort.
- Cross-sectional studies usually include more subjects, but describe fewer growth factors than longitudinal studies. While the latter is the only direct method of studying human development, the cross-sectional approach is less expensive and faster since the actual passage of time is eliminated by sampling different subjects across age ranges.
- Sampling in the cross-sectional method is complicated because the same children are not involved at each age level and may not be comparable. To generalize intrinsic developmental patterns from these sequential samples of children runs the risk of confusing differences due to development with other differences between the groups that are artifacts of the sampling process.
- Trend studies are vulnerable to unpredictable factors that modify or invalidate trends based on the past. In general, long-range predication is an educated guess while short-range prediction is more reliable and valid.

### **Survey Research**

A survey is a means of gathering information about the characteristics, actions, or opinions of a large group of people, referred to as a population. A survey research is thus defined as "*the systematic gathering of information from respondents for the purpose of understanding and/or predicting some aspect of the behavior of the population of interest*" (Tull & Hawkins, 1997, p. 164). A survey study is perhaps the dominant form of data collection in social science, today. If conducted scientifically, this type of research can contribute to the advance of knowledge. A Survey study may be done in the field — an example would be a survey of employee attitudes toward a new compensation policy — or it may take place in a library, where a survey of secondary literature is conducted. In survey research, the researcher selects a sample of respondents from a population and administers a standardized questionnaire to them. Hence, using surveys, it is possible to collect data from large or small populations.

### **Types of Survey Research**

- Exploratory survey research. This type of survey research takes place during the early stages of research. It provides the basis for more in-depth surveys. Sometimes, this kind of survey is carried out using data collected in previous studies.
- Confirmatory (theory-testing or explanatory) survey research. In this type of survey, data collection is done with specific aim of testing the theory or hypothesis.
- Descriptive survey research. This type of survey research describes the distribution of the phenomenon in a population. Through facts described, it can provide useful hints both for theory building and for theory refinement.

The aim of survey research is to measure certain attitudes or behavior of a population or a sample. The attitudes might be opinions about the services provided by a business firm or feelings about certain issues or practices. Most often respondents are asked for information. Surveys come in a wide range of forms and can be distributed using a variety of media: written surveys, oral surveys, or electronic surveys. The questionnaire, or survey, can be a written document that is completed by the person being surveyed, on online questionnaire, a face-to-face interview, a mail survey, or a telephone interview. Some forms of survey research by telephone or Internet may be completely automated. Using surveys, it is possible to collect data from large or small population.

The methods researchers use when designing, conducting, analyzing, and reporting the results of surveys vary according to research goals, the population surveyed, and the type of survey that is used. Survey research has also changed dramatically in the last ten or fifteen years. Today, we have automated telephone surveys that use random dialing methods. A whole new variation of group interview has evolved as focus group methodology.

## **Case Study Research**

Case study research is an important approach to study the topics in social science and management. Case studies are written summaries or synthesis of real-life cases based upon data and research. A case study is thus defined as *"a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within a real-life context using multiple sources of evidence"* (Robson, 1993, p. 54).

Yin (1994) defines the case study research as *"an empirical inquiry that investigates contemporary phenomenon within its real-life context"* (p.79). Rather than using samples to examine a limited number of variables, case study methods involve in in-depth, longitudinal examination of a single instance or event (case). This research thus views a social or study unit as a whole in its real-life context. This study phenomenon could be a person, a family, a social group, an institution, a community, or even an entire culture.

*A case study not only uses the sources and techniques of historical story but also employs several techniques and sources of data for examining current aspects of the phenomenon under study. A case study could be conducted in the field as well as a non-field setting (Shah, 1972, p.11).*

The investigator gathers pertinent data about the present status, past experiences and environmental forces that contribute to the individuality and behavior of the unit. After analyzing the sequences and inter-relationships of these facts he or she conducts a comprehensive study of the social unit as it functions in society.

Case studies need to be both comprehensive and systematic. That is, as much data as possible need to be collected in a way that ensures as little as possible is missed. Jensen and Rodgers (2001) set forth a typology of case studies as follows:

- *Snapshot case studies are the detailed study of one unit.*
- *Longitudinal case studies are studies of the same unit at multiple time points.*
- *Pre post case studies are undertaken at two time points separated by a critical event.*
- *Cross-cut studies are studies of multiple case studies for the purpose of comparison.*

When selecting a case for a case study, researchers often use information-oriented sampling, as opposed to random sampling. This is because the typical case is often not the richest in information. Information-oriented cases may be distinguished as: extreme cases, critical cases, and exemplar cases. Extreme cases reveal more information because they activate more basic mechanisms and more actors in the situation studied.

It is sometimes impossible for you to handle the whole social reality; at other times, the conceptual basis for understanding some aspects of social reality is not available. In such cases, you may first want to explore the social reality before you formulate and test specific hypotheses. But you must recognize that a case does not represent the total reality. It is just one example of the social reality. Hence, a case study may be an intensive, integrated and insightful method of studying the social phenomena. It can also be used to illustrate a theory by providing an example.

In recent years, there has been increased attention to implementation of case studies in a systematic manner which increases the validity of associated findings. However, although case study research may be used in its own right, it is more often recommended as part of a multi-method approach (triangulation).

### **Characteristics**

- Case studies are in-depth investigations of a given social unit resulting in a complete, well-organized picture of that unit. Depending upon the purpose, the scope of the study may

encompass an entire life cycle or only a selected segment; it may concentrate upon specific factors or take in the totality of elements and events.

■ Compared to a survey study which tends to examine a small number of variables across a large sample of units, the case study tends to examine a small number of units across a large number of variables and conditions.

■ Because case studies are intensive, they bring to light the important variables, processes and interactions that deserve more extensive attention. They pioneer new ground and often are the source of fruitful hypotheses for further study.

■ Case study data provide useful anecdotes or examples to illustrate more generalized statistical findings.

■ Because of their narrow focus on a few units, case studies do not allow valid generalizations to the population from which their units came until the appropriate follow-up research is accomplished, focusing on specific hypotheses and using proper sampling methods.

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### **Limitations of Case Study**

- A case study is more expensive because of its exploratory nature.
- A generalization drawn from a single case cannot be applied to all cases in a given population
- There is some element of subjectivity. You must guard against permitting personal biases and standards to influence your interpretation.