



مجموعة جامعة
الجميع الذكية
للتعليم القابضة

MIDOCEAN
UNIVERSITY

Introduction to Research Methods

Prepared by Dr. Mona Moustafa Elashry

MGM 333
Revision

Lecture 11



مجموعة جامعة
الجميع الذكية
للتعليم القابضة

MIDOCEAN
UNIVERSITY

CH1: CH1: Major research paradigms

- ❑ Research is an organized, systematic, data-based, critical, objective, scientific inquiry into a specific problem that needs a solution.

1. Purposiveness
2. Rigor
3. Testability
4. Replicability
5. Precision
6. Objectivity
7. Generalizability
8. Parsimony

- The manager has started the research with a definite aim or purpose.
- The focus is on increasing the commitment of employees to the organization, as this will be a beneficial in many ways.

- A good theoretical base and a sound methodological design would add rigor to a purposive study.
- Rigor means carefulness, and the degree of exactitude الدقة in research investigations

- After taking random selection of employees of the organization, and the study of previous research done of the area of organizational commitment, the researcher develops certain hypotheses on how employee commitment can be enhanced.

- Then these hypotheses can be tested by applying certain statistical tests to the data collected for the purpose.
- Scientific research tends itself to testing logically developed hypotheses to see whether or not the data support the hypotheses that are developed

- The results of the tests of hypotheses should be supported again and again when the same type of research is repeated in other similar circumstances.
- If the results are repeated, we will gain confidence in the scientific nature of our research

- **Precision** refers to the closeness of the findings to reality based on a sample.
- **Confidence** refers to the probability that our estimations are correct.

- The conclusions drawn through the interpretation of the results of data analysis should be objective.
- The conclusions should be based on the facts of the findings derived from actual data, and not on our own subjective or emotional values.
- The more objective the interpretation of the data, the more scientific the research investigation becomes.

- Generalizability refers to the scope of applicability of the research findings in one organizational setting to other settings.
- The wider the range of applicability of the solutions generated by research, the more useful the research is to the users

- Parsimony refers to simplicity in explaining the phenomena or problems that occur, and in generating solutions for the problems.
- Economy in research models is achieved when we can build into our research framework a lesser number of variables that would explain the variance far more efficiently than a complex set of variables that would only marginally add to the variance explained.

The research hierarchy

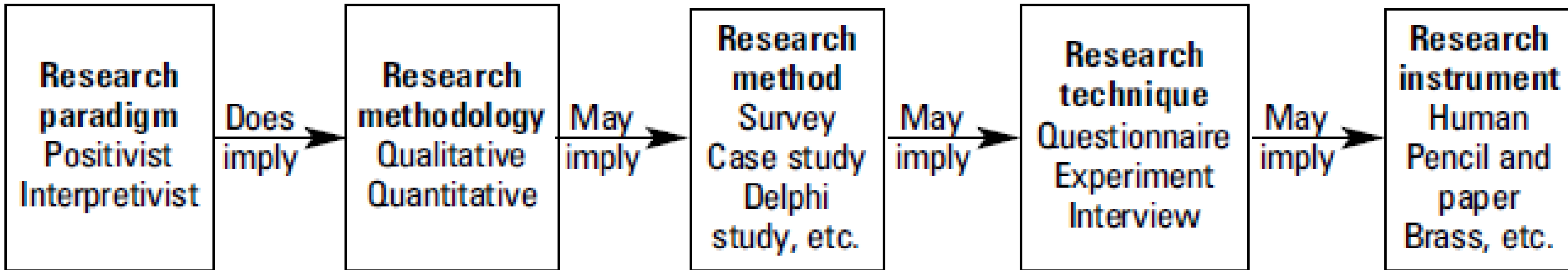


Figure 0.1 The research hierarchy (Pickard, 2002; Pickard and Dixon, 2004)

Research Paradigms



Why does it matter?

- **Ontology** - is the nature of reality, different ways of constructing reality; 'how things are' and 'how things really work' (Denzin & Lincoln, 1988 p.210)
- **Epistemology** - is the philosophy of how we can know that reality; different forms of knowledge of that reality.
- **Methodology** - is the practice of how we come to know that reality; the tools we use to know that reality.

Paradigm differences The three questions then are;

- ❖ **What is the nature of reality?** - This is the ontological question concerning the nature and form of reality.
- ❖ **What is the nature of the relationship between the knower and the known?** – This is the epistemological question.
- ❖ **How we can come to know it?** - This is the methodological question.

- **Positivism:**
Associated with quantitative research
- **Interpretivist / constructivist**
Associated with qualitative research
- **Post-positivism:**
Mixed methods

- Positivists see the world as a collection of observable facts which can be measured.

Ontological stance - Realism

- There exists a single, tangible, objective reality. We can understand it through the laws that govern it.

Epistemological stance - Objectivist / dualist

- Objective observation leading to discovery of that reality

Methodology

- Experimental, objective observation.

Purpose

- predication / control / explanation / verification (1798–1857) (1596-1650)

□ What can we 'know'?

- "... those who are seeking the strict way of truth should not trouble themselves about any object concerning which they cannot have certainty equal to arithmetic or geometrical demonstration" (Descartes, as cited in Lines, 2001, p. 172).
- If it can't be counted or measured with certainty then we can never truly know it.
- Questions: What? How much? Relationships / casual effect Those best answered with Numerical precision Hypothesis formulation

- **Research methodology:** This is the theoretical perspective of the research, that is the overall nature of the research activity.
- **Research method:** This is the bounded system created by the researcher to engage in empirical investigation, the overall approach, often referred to as a 'strategy.'
- **Research techniques:** These are the individual data collection techniques applied within the method. The most obvious example of lack of distinction between method and techniques is the use of the terms 'survey' and 'questionnaire'; very often the two are used interchangeably within the research methods literature.
- **Research instrument:** This is the device that is designed or trained to collect the data necessary to provide insight or offer answers to the questions being asked.

- Quantitative research begins with a theoretical framework established from the literature review a hypothesis will emerge and the variables within that hypothesis can be identified.
- The notion of a hypothesis can also be translated into research aims and objectives it is only compulsory to have a hypothesis when true experimental research is chosen as the method select the most appropriate research method calculate the sample and design the data collection within that method.

- The emergent design of qualitative research does not allow for a detailed plan before the research begins 'the research design must therefore be 'played by ear'; it must unfold, cascade, roll, emerge' (Lincoln and Guba, 1985 p.203)
- **Human research instrument:** The researcher plays the role of 'instrument' trained to capture the data as it 'comes in'
- **Emergent design** Responding the story as it reveals itself
- **Negotiated outcomes** Interaction between the researcher and the researched – interpretation based on the relationship between the two.

- Triangulation Design
- Exploratory Design
- Explanatory Design

Creswell, J.W. and Plano Clark, V.L., 2011. Choosing a mixed methods design. *Designing and conducting mixed methods research*, 2, pp.53-106.

- The most common and well-known approach to mixing methods is the Triangulation Design. The purpose of this design is “to obtain different but complementary data on the same topic”

Creswell, J.W. and Plano Clark, V.L., 2011. Choosing a mixed methods design. *Designing and conducting mixed methods research*, 2, pp.53-106.

- **Variants of the Triangulation Design:**
 - the convergence model
 - the data transformation model
 - the validating quantitative data model

- The Explanatory Design is a two-phase mixed methods design. The overall purpose of this design is quantitative results.
- This design starts with the collection and analysis of quantitative data. This first phase is followed by the subsequent collection and analysis of qualitative data.
- The second, qualitative phase of the study is designed so that it follows from (or connects to) the results of the first quantitative phase.

- As with the Explanatory Design, the intent of the two-phase Exploratory Design is that the results of the first method (qualitative) can help develop or inform the second method (quantitative).

Table 4.2 The Major Mixed Methods Design Types

<i>Design Type</i>	<i>Variants</i>	<i>Timing</i>	<i>Weighting</i>	<i>Mixing</i>	<i>Notation</i>
Triangulation	• Convergence • Data transformation • Validating quantitative data • Multilevel	Concurrent: quantitative and qualitative at same time	Usually equal	Merge the data during the interpretation or analysis	QUAN + QUAL
Embedded	• Embedded experimental • Embedded correlational	Concurrent or sequential	Unequal	Embed one type of data within a larger design using the other type of data	QUAN(qual) or QUAL(quan)
Explanatory	• Follow-up explanations • Participant selection	Sequential: Quantitative followed by qualitative	Usually quantitative	Connect the data between the two phases	QUAN → qual
Exploratory	• Instrument development • Taxonomy development	Sequential: Qualitative followed by quantitative	Usually qualitative	Connect the data between the two phases	QUAL → quan



مجموعة جامعة
الجميع الذكية
للتعليم القابضة

MIDOCEAN
UNIVERSITY

CH2: Reviewing literature

- ❑ A literature review is a critical discussion of all significant, publicly available literature that contributes to the understanding of a subject.

- The truth is:

The literature review process is a continuous one throughout the lifespan of the research project; there will be a point at which your individual critical analysis of items will be synthesized but you will not stop there.

- ❑ Is the documentation of a comprehensive review of the published and unpublished work from secondary sources of data in the areas of specific interest to the researcher.

❑ **Literature review is a ‘runway’ because it should:**

- Clarify your own research aims
- provide you with the depth and breadth of subject knowledge necessary
- Form the theoretical framework for your own empirical investigation
- Contribute to your research design.

- From your review you can then move on to the next stage in the research process:
 - ✓ framing your research question, aims and objectives or hypothesis based on what you have discovered from within the published literature.



مجموعة جامعة
الجميع الذكية
للتعليم القابضة

MIDOCEAN
UNIVERSITY

CH3: Defining the research

- ❑ Both qualitative and quantitative research demand the development of a theoretical and conceptual framework; after the conceptual stage the two approaches begin to move forward in their own discrete fashion.

- Essentially the research question should itself determine the design of your study but it is usually the case that naturally qualitative researchers ask questions such as: Why? How? What?, and naturally quantitative researchers ask such questions as How many? How often? Where?

- Hypothesis testing is only carried out in quantitative or positivist research; very often qualitative or interpretivist research will culminate in the generation of a working hypothesis but it is not the driving force behind the research design.

- Although devising and testing hypotheses is useful in most quantitative research, it is an essential part of statistical inference.
- Hypothesis testing is an attempt to investigate the relationship between two or more variables.

- ❑ **Hypothesis testing is deductive:** the problem is stated and then data is collected in direct response to the stated problem.
- ❑ You can see that there is a rigid structure to this approach that dictates the empirical data collection.
- ❑ **An experimental hypothesis will have three types of variable:** an independent variable, a dependent variable and intervening variables

- ☐ **The independent variable** is the condition that is manipulated by the researcher
- ☐ **The dependent variable** is the effect of this manipulation
- ☐ **The intervening variables** are all of those things the research has no control over. It is important to acknowledge the potential impact of intervening variables on any research findings



مجموعة جامعة
الجميع الذكية
للتعليم القابضة

MIDOCEAN
UNIVERSITY

CH4: The research proposal

- ❑ There are a number of reasons for preparing a research proposal. In the case of funded research it is quite simply that there will be no funding without one.
- ❑ All funding bodies have their own framework for a submission of a research proposal; in many cases these frameworks are now in electronic form and very structured, often restricting the writer to a specific number of characters in each section.

- A formal document means that there is a formula which, if followed carefully, ensures that you have covered all of the areas you need to cover in order to present your proposed research.
- Although requirements for a research proposal can often differ slightly according to funding body, academic or professional body regulations, there is an almost universally accepted list of contents' that is expected.

- **Bear this in mind when you examine this proposed structure, which includes:**
 - ❖ a clearly defined title and introduction
 - ❖ a statement of aims and objectives, or a hypothesis
 - ❖ a review of the literature
 - ❖ a research design an intended sample
 - ❖ a list of procedures for data processing and analysis
 - ❖ a definition of anticipated research outputs
 - ❖ a statement of anticipated constraints
 - ❖ a discussion of any ethical considerations and how these will be handled
 - ❖ a project timetable

- Your choice of sampling technique will depend very much on your research design.
- It is important in a research proposal to identify how a sample will be achieved, and the technique and procedures that will be used.
- It is also important to identify the research population, the size of the sample that will be used, if this can be determined at this stage, and how the sample will be contacted.

- Limitations are inevitable in many research studies.
- It is far more usual to make compromises in research design than it is to do everything we would like to do, exactly as we would like to do it.
- What matters is that these limitations are identified and explained from the outset.



مجموعة جامعة
الجميع الذكية
للتعليم القابضة

MIDOCEAN
UNIVERSITY

CH5: Sampling

- ❑ Sampling is the process of selecting a few from the many in order to carry out empirical research.

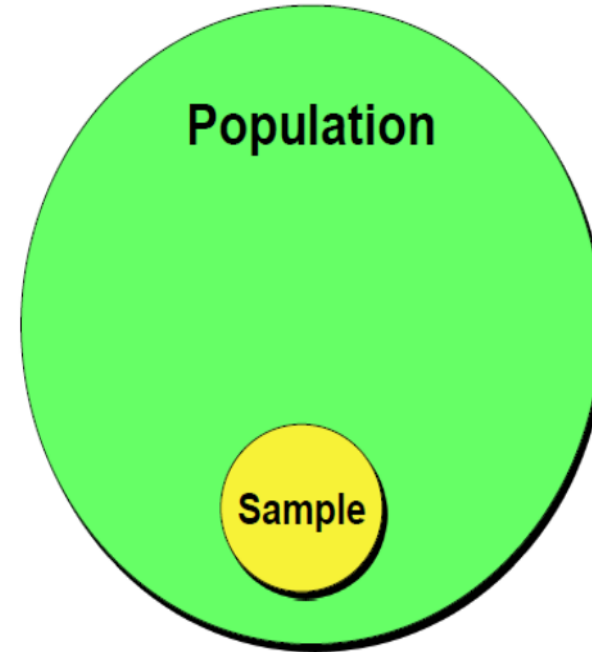
- ❑ Sampling is used when it is not possible or practical to include the entire research population in your study, which is usually the case

- ❑ It is totally inappropriate to engage in a small-scale, localized qualitative study then attempt to generalize from the findings.

- ❑ A rather simplistic rule of thumb is to assume that **quantitative research** will tend to use probability sampling techniques and **qualitative research** will tend to use purposive sampling.

Population – A group that includes all the cases (individuals, objects, or groups) in which the researcher is interested.

□ **Sample** – A relatively small subset from a population



- **An element** is a single member of the population.
- **A subject** is a single member of the sample, just as an element is a single member of the population.

- Sampling is a vital stage in the research process; the outcomes, rigour and trustworthiness of your research all rely on the robustness of the sample and how that sample was identified.
- The sampling technique you apply must be appropriate to your research goals and conform to the research tradition you have chosen for your investigation.

- For most research, investigators often have to make do with whatever subjects they can gain access to. Generalizations from such samples are not valid and the results only relate to the subjects from whom they are derived' (Burns, 2000, 85). In qualitative research this is exactly as it should be.

- Generalization, in this sense, is not a goal of qualitative research but it often is in quantitative research.
- Whichever tradition you are following be very careful about claims you make based on the sample you have studied.



مجموعة جامعة
الجميع الذكية
للتعليم القابضة

MIDOCEAN
UNIVERSITY

CH6: Research data management

- ❑ Research data management (RDM) comprises the activities that keep your data secure, accessible and usable.
- ❑ It is a fundamental part of good research practice.

- ❑ There are seven fundamental reasons why managing research data matters:
 - To comply with an agreed research requirement
 - To work effectively and efficiently
 - To protect the data
 - To enable data use and/or re-use
 - To share data with others
 - To preserve the data
 - As good research practice.

❑ A requirement

- Different stakeholders, such as research funders or universities, could place requirements on what you do with your research data.
- In such cases, you would have no choice but to manage the data in accordance with these requirements.

☐ To protect the data

- This means keeping your data safe, safeguarding it, protecting it.
- This covers many things from avoiding loss, theft, accidental deletion, corruption of files and virus attack to avoiding obsolescence, i.e. the inability to read the data storage device and/or format.
-

❑ To enable data use and/or re-use

- Data has value as an enabler of new opportunities and to analyze situations through time.
- In addition, re-using data makes good economic sense. There is a subtle but important distinction between use and re-use.

❑ To share data with others

- Often original research will benefit from appropriate sharing and in some instances this will be imperative to work as a research team.
- Data can only be effectively and efficiently shared if it is well managed to ensure that confidential data is protected but that data can be appropriately accessed as required.

❑ To share data with others

- In re-using data new data can be generated from the original data, for example by:
 - ✓ migrating data into a different format
 - ✓ creating new visualizations of the data
 - ✓ enhancing the data, e.g. by adding additional information
 - ✓ integrating the data with other data to create a combined dataset
 - ✓ applying new analyses and techniques to the data.

❑ To preserve the data

- If we are to be able to use/re-use data then preservation must be considered as early as possible, especially in the digital environment.

❑ As good research practice

- A final reason why research data management is important is that it is simply part of good research practice, in the same way as is the initial literature review, project management, consent, methodological design, etc.

- planning the project
- collecting data (finding and accessing existing data to re-use it; obtaining new research data)
- processing and analyzing data
- producing outputs (sharing data with other researchers and the stages at which it may need to be shared and with whom; publishing results and scholarly articles, books, etc.)

- ✓ planning what to do, the data management plan
- ✓ documenting the research process and activities, file structures and metadata for files, documents, etc.
- ✓ storage (which aligns to the previous point) and access/confidentiality requirements
- ✓ appraisal to decide what to keep, and for how long to keep it, and what to securely delete/destroy
- ✓ preservation
- ✓ publication and sharing of data.



مجموعة جامعة
الجميع الذكية
للتعليم القابضة

MIDOCEAN
UNIVERSITY

CH7: Ethics in research

- ❑ Research ethics is a field which is constantly changing, and its boundaries are at times quite fuzzy. What might be acceptable research behaviour one year may be unacceptable the next. (Bow, 1999, 254)

- ❑ The keys to access are almost always in the hands of multiple gatekeepers, both formal and informal.

- ❑ When research participants give informed consent it means that they understand what they are agreeing to, accept what is being asked of them and are comfortable with the purpose of the research and the intended use of the data they are providing.

- ❑ There are occasions when it is impossible to engage in research without individual subjects understanding, agreeing to and signing a formal consent form.

- ❑ Individuals who are below the legal age of consent, or those not classed as competent, should never be questioned, observed or investigated in any way without the formal written consent of their parents or guardians.

- ☐ There is a distinction between anonymity and confidentiality.
- ☐ You are guaranteed total confidentiality with regard to anything you say, do or write in relation to this research within the normal boundaries of the law. You will not be asked to reveal anything that could harm or distress you in any way.

- ❑ Anonymity implies that the research participant remains totally anonymous during and after the research activity; this can never be the case if the researcher is to meet that person at all during the research process.

- ☐ It is even less likely if the researcher has made contact with the participant through a third person, which is the case in most research studies.
- ☐ You can promise and provide confidentiality, which means that the identity of the participant will not be revealed when using any data provided by that participant.

- ☐ **Anonymity** means nobody knows who the participant is
- ☐ **Confidentiality** means nobody will be told the identity of the participant.

- ☐ All data will be identified by a fictional name that is only known to the researcher.
- ☐ Total anonymity cannot be guaranteed as contact with you has been made through your school and you will meet the researcher face-to-face, but no data will be directly associated with you by your real name and in the event of publication no identifying personal data will be revealed.

- ☐ All data will be sorted at the home of Alison Pickard and destroyed at the end of the formal period of retention.
- ☐ The only people with access to this data are the researcher's supervisors and examiners who may request to see it but in no way will they attempt to identify you through this data.

- ☐ Once you have made promises to participants make sure you honour these promises, be careful about labelling audiotapes or attaching names to computer files.
- ☐ It is usually better to remove all identifying data at the earliest stage to avoid overlooking anything later.

- ☐ A common tactic used to provide confidentiality is to refer to participants by a pseudonym, or code, depending on the research method being used.
- ☐ I prefer pseudonyms in case study research as they retain the personal element of the individual, but codes can be used if you prefer.
- ☐ The point is to ensure that no real names or identifying information is given when you report the research.

- ❑ This is actually a lot more difficult than it seems; there are occasions when it is almost impossible to hide the identity of an individual or an organization.
- ❑ Many individuals are easily identifiable by their role in an organization; for example, there is only one head of a library service.



مجموعة جامعة
الجميع الذكية
للتعليم القابضة

MIDOCEAN
UNIVERSITY

Part 2 Research methods

- ❑ Case study research is a method designed to study the particular within context and has a very specific purpose.

- ❑ 'The case study has unfortunately been used as a “catch-all” category for anything that does not fit into experimental, survey or historical methods.
- ❑ The term has also been used loosely as a synonym for ethnography, participant observation, naturalist inquiry and fieldwork' (Burns, 2000, 458).

□ Types of case study

Stake identifies three types of case study:

- ✓ The intrinsic case study
- ✓ The instrumental case study
- ✓ The collective case study.

❑ The intrinsic case study

is one that is carried out for no other purpose than to give us a better understanding of the case.

For example, you may wish to examine your own service or department in considerable depth; with an intrinsic case study you would be doing that for no other purpose than to acquire a deeper understanding of the service

❑ The instrumental case study

If we wish to examine a particular phenomenon then we would conduct an instrumental case study. In this case the purpose is to investigate a particular phenomenon or theory and the case itself becomes less important other than as a vehicle for our investigation

❑ The collective case study

The term collective case study is used to describe a research study that uses more than one case to investigate particular phenomena; usually the study is a collection of instrumental cases as it is rare for a study to focus on multiple cases for their own sake, although it is possible

❑ Triangulation

- Triangulation within a case study can be achieved by using multiple data collection techniques or multiple sources of evidence, or very commonly both.
- Triangulation can be used for two purposes within a case study, depending on the overall approach of the research.
- Yin (2008, 92) claims that the purpose of triangulation is ‘to collect information from multiple sources but aimed at corroborating the same facts or phenomenon’.

- ❑ The purpose of survey research is to gather and analyse information by questioning individuals who are either representative of the research population or are the entire research population.

- ☐ The findings from the survey can then be generalized to the wider population.
- ☐ Survey research can include qualitative and quantitative research, but is usually quantitative with a limited qualitative element.

- ❑ The term 'survey' is often used interchangeably with 'questionnaire'; the two are not the same thing and it can lead to confusion if the distinction between the two is not made very obvious.

- ☐ Probability sampling is vital in order to make valid generalizations about the wider population. When non-probability sampling is used you must take care with any statements you make that attempt to generalize to the wider population

- ❑ Experimental research epitomizes the positivist paradigm.
- ❑ Experiments are possible on systems with stable functions, variables that can be systematically controlled; the human condition does not fall into this category. 'Effects studies' have been carried out in many branches of social science, but inference made from these studies is usually tenuous at best.

- ❑ In experimental research we are dealing with a number of different variables:
 - the independent variable (IV): the phenomenon or situation that is manipulated by the researcher
 - the dependent variable (DV): the behaviour or effect that is measured by the research as a result of the manipulation

- ❑ In experimental research we are dealing with a number of different variables:
 - the moderator variable (MV): the factor which is 'measured, manipulated or selected' by the researcher to determine whether or not it changes the relationship between the IV and DV
 - the control variable (CV): a potential IV that is artificially held constant by the researcher throughout the experiment.

- ❑ Historical research plays a vital role in the development of theory and practice; it has relevance as a research method in all subject disciplines and although very different from the other research methods discussed in this section, it is still a 'scientific' method, which must conform to standards of practice

- ❑ The most notable difference between historical research and all other methods available to the researcher is the nature of the 'evidence' used to generate theory or test a hypothesis.

- ❑ Historical research is essentially qualitative because of the interpretation that is inevitably involved; there are uses for quantifiable data in some investigations but because this approach depends so much on interpretation, by definition it becomes qualitative.

- ❑ **Grounded theory** is an approach that uses 'simultaneous data collection and analysis' (Charmaz, 2006, 20) and as such can be applied in case study, historical or action research.
- ❑ It is more about how data is collected and analyzed than about the entire research design.
- ❑ Grounded theory is a process of qualitative analysis, not a research method; it is a 'general method of comparative analysis'

- ❑ Grounded theory is described as ‘a strategy for handling data in research, providing modes of conceptualization for describing and explaining’ (Glaser and Strauss, 1967, 3).



مجموعة جامعة
الجميع الذكية
للتعليم القابضة

MIDOCEAN
UNIVERSITY

Part 3 Data collection techniques

- ☐ This section will deal with individual techniques for collecting empirical data.
- ☐ A single research design may include one or more data collection techniques.
- ☐ If you are aiming for methodological triangulation then you will be engaging in a number of data collection techniques

- ✓ Thank your participants in whatever way is appropriate, whether with a letter, a simple verbal 'thank you' or an acknowledgment in the final report. Don't just walk away.

- ❑ The research interview can take a number of different forms, from the very structured, formal interview which is usually a researcher-administered questionnaire, to the very informal, purposeful conversation (Dexter, 1970; Lincoln and Guba, 1985)
- ❑ The interview can take any form, from the highly structured researcher-administered questionnaire to the highly open purposeful conversation.

- ☐ Before you decide what form of interview will suit you best you have to decide if indeed the interview is the most appropriate technique to use.

❑ Types of interview

- ✓ **Structured interviews:** 'Structured interviewing refers to a situation in which an interviewer asks each respondent a series of preestablished questions with a limited set of response categories'

□ Types of interview

- ✓ **Structured interviews:** There are two forms of structured interview.
 - In a standardized, open-ended interview all interviewees are asked the same open-ended questions but allowed to respond in any way they feel is appropriate and with any information they choose to share.



□ Types of interview

- ✓ **Structured interviews:** There are two forms of structured interview.
 - In a closed, fixed-response interview interviewees are asked the same questions and choose from a predetermined set of alternative answers. It is also possible to use a combination of the two methods.
 - Although this type of interview is very similar to the questionnaire the major benefit is the visual and oral clues you can pick up by listening to and watching your respondent..



□ Types of interview

- ✓ **Unstructured interviews:** Unstructured interviews are used to gain a holistic understanding of the thoughts and feelings of the interviewee: you are there to learn about their point of view. Very often this type of interview is used in the early stages of the research to explore salient issues for further investigation.
- ✓ Unstructured interviews are concerned with open-ended questions that allow the interviewee to tell their own story in their own words.



- ❑ Survey data are usually obtained by means of a questionnaire, a series of pre-determined questions that can be either self-administered, administered by mail, or asked interviewers.

- ❑ There are a number of reasons for using questionnaires in your research:
- ✓ you can reach a large and geographically dispersed community at relatively low cost
- ✓ you can harvest data from a larger sample than would be possible using any other technique
- ✓ anonymity can be offered as well as confidentiality

□ Forms of questionnaire

❖ Paper-based postal questionnaires

The most common form of questionnaire is the paper-based, printed instrument. The most typical forms of distribution are by post, handing them to individuals at group events or leaving them in a prominent position where people are encouraged to complete and return them to the distribution point.

□ Forms of questionnaire

❖ Electronic questionnaires

The term 'electronic questionnaires' is generally used to cover both online questionnaires and questionnaires contained within an e-mail message;

it does not cover questionnaires produced in a word-processing package and then sent to participants as an attachment: this is still a 'paper-based' questionnaire using a different mechanism for distribution

□ Forms of questionnaire

❖ **Researcher-administered questionnaires**

Researcher-administered questionnaires usually generate the highest response rate of any questionnaires, because you approach your subject and you complete the questionnaire by asking the questions and filling in the document according to what they tell you.

The most obvious example of this is the market researcher working in the street –

- It is also a very good idea to be aware of how you intend to analyze the data and how it will be used to inform the investigation.
- Be sure to pilot your instrument with a reasonable number of test subjects before you release it to your sample population.



GET READY
BE READY
FINAL EXAMS



مجموعة جامعة
الجميع الذكية
للتعليم القابضة

MIDOCEAN
UNIVERSITY



Thank You

