

Tutorial Letter 201/1/2018

Personnel Psychology: Organisational Entry

IOP3702

Semester 1

Department of Industrial and Organisational Psychology

IMPORTANT INFORMATION:

This tutorial letter contains important information about this module.

BAR CODE

CONTENTS

	<i>Page</i>
1. LECTURERS.....	2
2. PREPARATION FOR THE EXAM.....	3
2.1 The format of the examination paper	3
2.2 Content to study for the examination.....	3
2.3 Criteria for answering the examination questions.....	3
2.4 General tips for answering examination questions	3
2.5 Previous examination paper.....	4
3. PREVIOUS EXAM PAPER.....	4
4. MEMORANDUM FOR ASSIGNMENT 01.....	6
5. MEMORANDUM FOR ASSIGNMENT 02.....	16
6. CONCLUSION.....	21

Dear Student

This is the last tutorial letter for the first semester of 2018 for students of Personnel Psychology: Organisational Entry (IOP3702). We trust that you have enjoyed the module so far and that you have found the content very interesting and practical.

The objective of this tutorial letter is to assist you with your preparation for the examination and to provide you with a memorandum for the Assignments.

1. LECTURERS

The general contact details for the Department of Industrial Psychology are:

- **Help desk(s):** +27 12 429 8033 or +27 12 429 8054
- **Fax:** +27 12 429 8368
- **E-mail:** DeptIOP@unisa.ac.za

The lecturers responsible for this module are:

Name	Office	Email address	Telephone number
Mr MB Leary	AJH van der Walt 3-99 (Unisa Muckleneuk campus)	learymb@unisa.ac.za	012 429 8373
Mr H von der Ohe	AJH van der Walt (Unisa Muckleneuk campus)	vdoheh@unisa.ac.za	012 429 8283

2. PREPARATION FOR THE EXAM

2.1 The format of the examination paper

- There will be no multiple-choice questions.
- The examination will consist of three sections:
 - Section A: Three 10-mark questions of which you have to complete two (Total: 20).
 - Section B: Three 15-mark questions of which you have to complete two (Total: 30).
 - Section C: Two 25-mark questions of which you have to complete one (Total: 25).

The exam paper will be a two-hour examination paper that counts 75 marks.

2.2 Content to study for the examination

- Study chapters 1 to 6 in the prescribed book.
- Pay careful attention to the assessment criteria given in Tutorial Letter 101. The theory that you have to learn is covered by the assessment criteria.
- No questions on statistics or questions that require mathematical calculations will be asked in the examination. **Therefore the use of calculators is not permitted in the examination.**
- Please note that theory from different chapters can be combined in one question.
- All the questions in the prescribed book, module online document and tutorial letters are equally important.

2.3 Criteria for answering the examination questions

When you answer an examination question, include the following in your answer:

- Give a definition or an explanation of the topic.
- Outline the key issues or main characteristics.
- List the steps to be followed in the process.
- List the advantages and disadvantages of each aspect.
- Refer to reliability and validity (where applicable).
- Describe the relevant theories, models or techniques that apply to the topic under discussion.
- Draw the necessary graph/figure and explain or describe the graph/figure, giving reasons why you drew it. (What do you want to illustrate by means of the graph/figure?)
- Where possible, give relevant examples to substantiate your answers.
- Look at the amount of marks allocated to the question and give at least that amount of facts. For example - for **10 marks you need to give at least 10 facts.**

2.4 General tips for answering examination questions

- Before you start answering any of the examination questions, plan your time. Allocate a certain amount of time to each question.
- Since the time is limited, it is not necessary to include an introduction or a conclusion in your answer.
- Read every question carefully to determine exactly what we expect of you. It is a good idea to bullet everything that we ask you. You can then use this as a checklist to make sure you have covered everything in your answer.

- Many students do not answer the questions that are asked and do not number their questions correctly. Make sure that your answers are numbered clearly according to the relevant section and specific question number.
- Headings are an effective way to structure your answer.
- A last request: **Please write down the numbers of the questions that you have completed on the front page of your answer book.**

2.5 Previous examination paper

To assist you in preparing for the examination we include an examination paper of a previous year. This examination paper should serve as *examples* of how we ask questions. Please do not concentrate solely on these questions when preparing for the examination. We try to cover all the learning units in the module online document and the corresponding chapters in the prescribed book.

3. PREVIOUS EXAM PAPER

SECTION A ANSWER ANY TWO (2) OF THE FOLLOWING QUESTIONS:

QUESTION 1

In order to achieve better work performance the company needs to start all its human resource processes with a proper job analysis. Discuss the importance of job analysis in terms of the following bullet points:

- | | | |
|-------|---|-------------|
| (i) | Define job analysis. | (4) |
| (ii) | Identify and describe the factors that influence job analysis reliability and validity. | (4) |
| (iii) | Describe the products of a job analysis. | (2) |
| | | [10] |

QUESTION 2

In the process of data collection, the researcher needs to make decisions regarding various aspects. Firstly, the people from whom the data will be collected should be identified. Secondly, the instruments or tools that are going to be used to gather the data should be identified. Within this context, discuss the following:

- | | | |
|------|---------------------------|-------------|
| (i) | Sampling | (3) |
| (ii) | Data-gathering techniques | (7) |
| | | [10] |

QUESTION 3

Differentiate between human resource management (HRM) and industrial and organisational psychology (IOP) in terms of the following headings:

- | | | |
|-------|---|-------------|
| (i) | Description of the type of work, roles and responsibilities | (4) |
| (ii) | Qualification and registration categories | (3) |
| (iii) | Overlap between these two fields | (3) |
| | | [10] |

QUESTION 4

Performance criteria are very important when determining the validity of any measure. Please answer the following questions with regard to performance criteria:

- (i) Discuss the challenges of developing performance criteria. (3)
 - (ii) Explain the meaning of criterion deficiency, criterion relevance, ultimate criterion and criterion contamination. (4)
 - (iii) Illustrate these criterion distortions by means of a figure. (3)
- [10]**

SECTION B
ANSWER ANY TWO (2) OF THE FOLLOWING QUESTIONS:

QUESTION 5

Industrial and organisational psychologists use non-test predictors such as interviews, assessment centres, work samples, biographical information, peer assessment and letters of recommendation. Discuss the following non-test predictors in terms of their advantages and disadvantages:

- (i) Interviews (5)
 - (ii) Assessment centres (5)
 - (iii) Letters of recommendation (5)
- [15]**

QUESTION 6

Industrial and organisational psychologists need to implement fair selection systems that comply with all the legislative requirements.

- (i) State the South African legislative requirement relevant to psychological testing in the workplace (remember to also mention the 2014 amendments). (5)
 - (ii) Define and discuss each of these requirements. (10)
- [15]**

QUESTION 7

You are a human resource officer who has been confronted by a shop steward complaining about the lack of fairness of the decision-making policies and practices in your organisation. Defend your viewpoint by explaining the following:

- (i) Concept of fairness (5)
 - (ii) Principles of procedural fairness (5)
 - (iii) The difference between fairness and bias (5)
- [15]**

QUESTION 8

Industrial psychologists are constantly faced with a host of practical problems. Understanding the research process helps them to solve these practical problems, apply the results of studies reported by others and assess the accuracy of claims made about new practices and equipment.

Explain the five-step empirical research process in detail, distinguishing between qualitative and quantitative research methods. [15]

SECTION C
ANSWER ANY ONE (1) OF THE FOLLOWING QUESTIONS:

QUESTION 9

Human resource planning is one of the tools that organisations use to achieve their overall goals.

Discuss the need for human resource planning and explain how strategic planning is linked to human resource planning. (5)

Furthermore, discuss the human resource planning process in detail. You will have to refer to the following phases:

- Investigative phase (5)
- Forecasts and estimations (5)
- Planning phase (5)
- Implementation phase (5)

[25]

QUESTION 10

One can hardly ignore the fact that the media always mentions a skills shortage or the “hunt for talent”. This applies especially to scarce skills. One of the first steps taken to avoid a skills shortage in your organisation is to recruit correctly. To accomplish this:

- Differentiate between the concepts recruitment, screening and selection. (5)
- Discuss the sources and methods of recruitment. (10)
- Discuss the recruitment planning process and the techniques that can be applied to enhance the quality of recruitment strategies. (10)

[25]

TOTAL: [75]

4. MEMORANDUM FOR ASSIGNMENT 01

QUESTION 1

As the Human resource (HR) officer you are confronted by a shop steward who complains about the lack of fairness in the decision making process regarding policies and practices in the organisation. Defend your viewpoint by referring to the following:

- (a) The concept of **fairness** (5)
- (b) The principles of **procedural fairness** (5)

[10]

Learning unit 6 and 12 in the Module online (MO) document (Chapters 6 & 12 in the text book)

The Concept of Fairness

(a) Fairness defined (any 5 of these points)

- Each definition of fairness is based on a different set of **values**, and has different implications for how selection and other personnel decisions are to be made. In this regard, we may expect management and unions to have vastly **differing views** of what constitutes fairness in personnel decision making.
- Fairness is a **social** rather than a psychometric or statistical concept.
- Fairness has **no single meaning**, and therefore no single statistical definition.
- Fairness or the lack thereof, is **not the result of the selection instrument or predictor**, nor is it the property of the selection procedure used.
- Fairness is the **total of all the variables that play a role or influence** the final personnel decision. This can include the test, predictor, and integration of data, recommendations based on these data, or the final decision made by line management
- Was the instrument **fairly applied** to all

The Principles of Procedural Fairness

(b) Principles of procedural fairness (any 5 of these points)

- **Objectivity.**
- **Consistency** in the treatment of all applicants.
- Freedom of the selection procedures from any form of **manipulation**, including adherence to deadlines of applications, etc.
- Selection process must be developed and conducted by **professionals**.
- **Confidentiality** of data to be maintained.
- Final decisions are based on a review of the candidate's data, and the decision made by **more than one** individual.
- Protection of the candidate's right to **privacy**. Personal information may only be sought in so far as it pertains to the characteristics of the job.
- Selection procedures in which **faking** may take place should be considered **unfair**, as results can be manipulated to meet the criteria
- Tests used should be **valid and reliable**.

Additional info students might add that are also considered correct:

Taylor (1992) adds to this the following criteria: Information must be **quantifiable**, thus ensuring objectivity and allowing for comparisons between individuals on the basis of 'scores' achieved.

All information used must be **directly related** and **unquestionably relevant** to the decision being made.

These principles of fairness are relevant in **all personnel decisions**, beginning with the selection of job applicants. Fairness must also be applied when making any decision which is likely to affect the existing

workforce, including decisions regarding **training and promotional opportunities, disciplinary steps and measures, and substantive and procedural decisions** regarding **dismissal**.

QUESTION 2

You are the Industrial and Organisational (IO) psychologist and have been asked to develop a new selection strategy for psychometric assessment in your organisation. Discuss the various professional and ethical aspects which need to be considered to ensure fair assessments. Refer to **test classification**, the **training and registration categories** of assessors and the ethical standards. **[10]**

Learning unit 5 in the Module online (MO) document (Chapter 5 in the text book)

i. Test classification (4 marks)

The American Psychological Association (APA) proposed guidelines for the classification of tests that are still relevant today. Assessment measures were classified as:

A-level tests - **No** psychology **registration** is required to administer A-level tests.

B-level tests - **Knowledge of test construction and training in statistics** and psychology is required to use B-level tests. Advanced training and supervision of a qualified psychologist may also be required.

C-level tests – **Substantial understanding** of test construction and moderating and contextual factors are required. **Supervised experience** should be obtained during training in order to be competent in administering, scoring and interpreting these measures. Typically at least a **Master's** degree is required.

In SA an assessment measure is either regarded as a psychological measure or not. Psychological tests may be used by psychometrists' under the supervision of a psychologist.

ii. Training and registration of assessors (3 marks)

The Professional Board for Psychology distinguishes between a **Psychometrist** and a **Psychologist**.

Psychometrists – in order to register as a Psychometrist an **honours degree** in Psychology is required. An appropriate supervised practicum minimum of **six months** in psychological testing and assessment and the guidance and supervision of a senior psychologist is also required. Lastly, **70%** should be obtained in the **examination** of the **Professional Board for Psychology**.

Psychologists – requires a **Masters'** degree with **12 months internship** in various IO Psychology or human-resources activities.

iii. Ethical standards (3 marks)

To protect the test takers' **right to privacy**, it is expected that any report on his or her assessment results should only contain information that is relevant to the purpose of the assessment.

Psychological assessors' primary responsibility lies with protecting the **confidentiality** of the information they have obtained during assessment. Personal information may only be released to someone else if the test taker gave "**unambiguous consent**, usually in written form" (Gregory, 2007, p.30).

Written informed consent is also based on the premise that the language in which the test-taker is informed of the purpose of the assessment should be one that is reasonably understandable to the test-taker.

QUESTION 3

The manager of a large clothing store would like to start an "employee of the month" program. In order to do this, she needs to:

- (a) Define and distinguish between conceptual- and actual criteria. Give an example of a conceptual criteria and an example of an actual criteria. (2)
- (b) The actual/observed criteria selected are never totally equivalent to the conceptual criteria we have in mind. There will always be a certain amount of distortion (deficiency and contamination). Explain the meaning of criterion deficiency, relevance and contamination. (10)
- (c) Illustrate the above by means of a diagram and also provide relevant examples to clarify your answer. (3)

[15]

Learning unit 4 in the Module online (MO) document (Chapter 5 in the text book)

(a) Define conceptual criteria:

The **conceptual criterion** is a theoretical construct, an abstract idea that can never actually be measured. It is an ideal set of factors that constitute a successful person (or object or collectivity) as conceived in the psychologist's mind (½ mark)

Example

- Let's say we want to define a successful university student. We might start off with intellectual growth; that is, capable students should experience more **intellectual growth** than less capable students.
- Another dimension might be **emotional growth**. A university education should help students clarify their own values and beliefs, and this should aid in emotional development and stability.
- Finally, we might say that a good student should want to have some **voice in civic activities**, be a "good citizen," and contribute to the well-being of his or her community. As an educated person, the good student will assume an active role in helping to make society a better place in which to live. We might call this dimension a **citizenship factor**.

Define actual criteria:

Actual criteria serve as **measures of the conceptual criteria** that we would prefer to (but cannot) assess. Actual criteria are the conceptual criteria turned into **measurable, real factors**.

Example:

- A psychologist might choose **average examination marks** (examination results) as a measure of **intellectual growth**. Of course, a grade point average is not equivalent to intellectual growth, but it probably reflects some degree of growth.

- To measure **emotional growth**, a psychologist might ask a student's adviser to judge how much the student has matured over his or her career (**advisor rating of emotional maturity**). Again, maturation is not exactly the same as emotional growth, but it is probably an easier concept to grasp and evaluate than the more abstract notion of emotional growth.
- Finally, as a measure of **citizenship**, a psychologist might count the **number of volunteer organisations** (student government, charitable clubs, and so on) the student has joined over his or her university career. It could again be argued that the sheer number (quantity) of joined organisations is not equivalent to the quality of participation in these activities, and that "good citizenship" is more appropriately defined by quality rather than quantity of participation. Nevertheless, because of the difficulties inherent in measuring quality of participation, plus the fact that one cannot speak of quality unless there is some quantity, the psychologist decides to use this measure.

(b) Explain the meaning of criterion deficiency, relevance and contamination:

Criterion deficiency is the degree to which the actual criteria fail to overlap the conceptual criteria—that is, how deficient the actual criteria are in representing the conceptual ones.

Example:

Any one of the examples from the textbook (below) can be used OR an example can be developed by the student which should be marked at the examiners discretion.

- Students typically begin a class with differing amounts of **prior knowledge** of the subject matter. One student may know nothing of the material, while another student may be very familiar with it. At the end of the term, the former student might have **grown more intellectually** than the latter student, but the latter student might get a **higher grade** in the course. By using the grade point average as our criterion, we would (**falsely**) conclude that the latter student grew more intellectually. So the relationship between grades and intellectual growth is **not perfect** (that is, it is **deficient**).
- A rating of **emotional maturity** by an academic adviser might be deficient because the adviser is not an ideal judge. He or she might have only a limited perspective of the student.
- Finally, it is not enough to just **count** how many volunteer groups a student belongs to. Quality of participation is as important as (if not more important than) quantity. (1 mark for a correct example)

Criterion relevance is the degree to which the actual criteria and the conceptual criteria **coincide**. The greater the match between the conceptual and the actual criteria, the greater is the criterion relevance. No mark is awarded for an example.

Criterion contamination is that part of the actual criteria that is **unrelated** to the conceptual criteria. It is the extent to which the actual criteria measure something other than the conceptual criteria.

Include the following:

Bias is the extent to which the actual criteria systematically or consistently measure something other than the conceptual criteria.

Error is the extent to which the actual criteria are not related to anything at all.

Example:

Any one of the examples from the textbook (below) can be used OR an example can be developed by the student which should be marked at the examiners discretion.

How might these actual criteria be contaminated?

- If some academic majors are more difficult than others, grades are a contaminated measure of intellectual growth; students in “easy” majors will be judged to have experienced more intellectual growth than students in difficult majors. This is a bias between earned grade point averages and the difficulty of the student’s academic major. The source of the bias affects the actual criterion (grades) but not the conceptual criterion (intellectual growth).
- A rating of emotional maturity by the student’s adviser could be contaminated by the student’s grades. The adviser might believe that students with high grades have greater emotional maturity than students with low grades. Thus, the grade point average might bias an adviser’s rating even though it probably has no relationship to the conceptual criterion of emotional growth.
- Finally, counting the number of organisations a student joins might be contaminated by the student’s popularity. Students who join many organisations may simply be more popular rather than better citizens (which are what we want to measure). (1 mark for a correct example)

Both contamination and deficiency are undesirable in the actual criterion, and together they distort the conceptual criterion. Criterion contamination distorts the actual criterion because certain factors are included that don’t belong (that is, they are not present in the conceptual criterion). Criterion deficiency distorts the actual criterion because certain important dimensions of the conceptual criterion are not included in the actual criterion.

(c) Illustrate the above by means of a diagram and also provide relevant examples to clarify your answer

Criterion deficiency occurs when an actual criterion (the actual measure of job performance obtained) is missing information that is part of the behaviour one is trying to measure **for example**, if an industrial psychologist considers the performance of a police officer to be defined exclusively by the number of criminals apprehended, ignoring many other important aspects of the police officer’s job, then that statistic would be considered a deficient criterion.

Criterion contamination occurs when an actual criterion includes information unrelated to the behaviour one is trying to measure **for example**, a sales manager may receive a poor performance appraisal because of low sales, even though the poor sales actually result from the fact that the manager supervises a group of young, inexperienced sales people.

Criterion relevance represents important organisational, team, and individual outcomes such as work-related behaviour, outputs, attitudes or a review of information about the job or work **for example**, include criteria such as behavioural and performance ratings, success in work-related training etc.

Mark Allocation:

Two marks for criterion deficiency (conceptual criteria) and contamination (actual criteria) indicated correctly on the graph. Award one mark for criterion relevance.

Include Figure 4.7 from Coetzee & Schreuder, p.144.

QUESTION 4

Industrial psychologists are constantly faced with a host of practical problems. Understanding the research process helps them to solve these practical problems, apply the results of studies reported by others and assess the accuracy of claims made about new practices and equipment. Explain the five-step empirical research process in detail, distinguishing between qualitative and quantitative research methods. **[15]**

Learning unit 2 in the Module online (MO) document (Chapter 2 in the text book)

It is important to remember that each of these steps influences the next step in the research process. The researcher takes a sequence of carefully planned and reasoned decisions throughout the research process. Each decision is followed by certain consequences.

Step 1: Formulating the research question (3 marks)

There are various questions asked that could be addressed in a research study. Each question requires a very specific answer. Based on the kind of answer that is required, we distinguish between various types of questions, namely:

- *Exploratory questions*: often asked when a relatively new field or area is investigated. The results of this research can often be used to generate more specific research questions that should be addressed in consecutive studies.
- *Descriptive questions*: it provides a picture of a state of events. Researchers may describe levels of productivity, numbers of employees who left during the year, etc.
- *Predictive questions*: researchers try to predict which employees will be productive, which ones are likely to leave, and which ones will be dissatisfied. This information is then used to select applicants who will be better employees.
- *Evaluative questions*: is set to determine the quality or effectiveness of a program, practice or procedure, for instance, whether a new training or learning program is effective in producing better performance in employees.
- *Causal questions*: is perhaps the most difficult to unravel. It is a question asking why events occur as they do. It tries to find causes: why production is at a certain level, etc.

The term *variable* is often used in conjunction with other terms in industrial psychological research. Four such terms that will be used throughout this book are *independent*, *dependent*, *predictor*, and *criterion*. *Independent variables* or *predictor variables* (as they are also referred to) are those variables that are manipulated or controlled by the researcher. They are chosen by the researcher, set or manipulated to occur at a certain level, and then examined to assess their effect on some other variable.

Once the research question has been formulated, the researcher needs to determine what type of study will best answer the specific research question.

Quantitative and qualitative research

We can distinguish between two broad types of research, namely quantitative research and qualitative research. *Qualitative research* aims to provide in-depth information and a deeper understanding of, for instance, behaviour at work. It is the best kind of research method for discovering underlying motivations, etc. *Quantitative research* aims to describe or explain a variable or situation. This type of research collects some type of numerical data and uses statistical analysis to answer a given research question.

Once a researcher has chosen a type of study to answer the question, the next step would be to select an appropriate research design.

Step 2: Choosing an appropriate design for the study (3 marks)

A *research design* is a plan or blueprint of how one intends to conduct the research. Research designs can be distinguished from one another in terms of two aspects, namely the naturalness of the research setting, and the degree of control that the researcher has.

Naturalness of the research setting

The naturalness of the research setting refers to the environment in which the study is conducted. Most research studies are conducted in the natural environment of the organisation (this is frequently referred to as a field study). This is desirable, because we would like to investigate the variable exactly as it occurs in the natural organisational setting.

Degree of control that the researcher has

In a natural organisational setting there are a number of other aspects or variables present that do not necessarily form a part of the study. These other aspects may influence the results of your study.

When one conducts research in an environment where one can control all the aspects that influence the study, there is a high degree of control. However, this is likely to be an unnatural environment like a laboratory, outside the natural setting of the organisation. From this one can deduce that there will always be a trade-off between the naturalness of the environment and the degree of control that the researcher has.

Types of design:

As mentioned earlier, various research studies each have specific types of designs. Within *quantitative* research, there are basically three types of research, namely non-experimental, experimental, and quasi-experimental.

- *Non-experimental research* is a descriptive type of research where the goal is to attempt to provide an accurate description or picture of a particular situation or variable. It attempts to identify variables that exist in a given situation and tries to describe the relationship that exists between the variables. Descriptive and predictive questions can be answered by non-experimental research.
- *Experimental research* tries to determine cause-and-effect relationships or aims to determine the cause of variables. Experimental research is the only type of research that can determine causality (in other words, the degree to which one variable causes another variable). From this one can deduce that the causality type of question would be answered by choosing an experimental design.
- *Quasi-experimental research* occurs when experimental procedures are applied, but not all other influencing variables are controlled in the study. This is the best type of study if one wants to investigate causality in the natural environment of the organization

Within *qualitative* research, the most common designs used in industrial psychology research are the following:

- A *case study* aims to provide an in-depth description of an object to be studied
- *Ethnography* is the art and science of describing a group or culture. An ethnographer details the routine daily lives of people in the group, focusing on the more predictable patterns of behaviour.
- *Grounded theory* is a qualitative research strategy in which the researcher attempts to construct a new theory from the available data. It involves multiple stages of data collection and looking for connections between categories of information. It is an inductive approach used to develop a theoretical concept about the life world of some selected group of people. It is also useful for exploring processes, activities and events.

- *Phenomenological research* is a type of research in which the researcher tries to understand the lived experience of participants. This involves studying a small number of participants over a period of time and through extensive engagement in order to gain a thorough understanding of their experience, developing patterns and relationships of meaning in this regard.
- *Narrative research* is a form of inquiry in which a researcher studies the life of an individual and asks one or more individuals to provide stories about their lives

The next step in the research process would be to collect the information, or data as it is called in research, that is needed to answer the question.

Step 3: Collecting the data (3 marks)

In the process of data collection, the researcher needs to make decisions regarding a few aspects. Firstly, the people from which the data will be collected should be identified. This group of people is called a sample. Secondly, the instruments or tools that are going to be used should be identified or developed, and thirdly, the instruments or tools should be administered to the identified group of people (the sample of participants) in order to gather the data. These steps would again be different for qualitative and quantitative research.

Sampling

In the first step of data collection, a relevant *sample* must be identified and drawn. In a quantitative research study, the researcher normally wants to answer the research question in such a manner that the answer is true or relevant for the whole group of employees that is investigated or a whole organisation that is studied. This is called *generalisability*. However, it is in most cases impossible, as a result of time, practical and cost constraints, to gather data from the whole group or organisation. Therefore quantitative research studies require the researcher to draw only a subset (sample) from the whole group or organisation that is to be investigated.

Various methods of drawing samples exist, of which random sampling is the most common. A *random sample* implies that each and every member of the group or organisation had an equal chance of being included in the sample. If a random sample is not drawn and only an available sample is used, then the results of the research cannot necessarily be generalised to the whole group or organisation. In quantitative research, samples that are drawn usually contain a large number of participants.

In qualitative research studies, the aim is not necessarily to generalise the research findings, but rather to gain a deeper understanding of a certain variable or situation. Therefore random sampling is not necessary, and much smaller sample sizes are also used. The researcher normally identifies the employees that are most knowledgeable or have the most experience in terms of the research topic, in other words, the researcher should identify employees who would be able to provide the most information regarding the topic and ask them to participate in the study.

Data-gathering techniques

You should be able to discuss the different data gathering techniques as a separate question.

Step 4: Analysing the data (3 marks)

After the data have been collected, the researcher has to make some sense out of them. Again, the research question and the type of study that one is conducting will determine the kind of analysis techniques that one will choose.

Although there are generic steps involved in analysing *qualitative* data, the data analysis needs to be tailored for the specific type of qualitative research design or strategy used. The generic steps involved could be to:

- *Step 1: Organise and prepare the data* by scanning, transcribing or typing the data and arranging it into different types of information.
- *Step 2: Obtain a general sense of the data* by reading through all of it and reflecting on its overall meaning. General notes or thoughts could be recorded at this stage.
- *Step 3: Do a detailed analysis by coding the data.* Coding is about organising the data into meaningful categories and labelling each category.
- *Step 4: Generate a description of the setting or people as well as categories* and identify a small number of themes. These themes can then be interconnected to form a storyline (as in narrative research) or developed into a theoretical model (as in grounded theory), or shaped into a general description (as in phenomenology). Themes can also be analysed for individual cases and across different cases (as in case study research).
- *Step 5: Convey the findings of the analysis.* This is often done by means of a narrative passage, but many qualitative researchers also include figures, visuals, tables or even process models as part of this discussion.
- *Step 6: Make an interpretation of the meaning of the data.* This is almost like summarising the lessons learned. In this section, finding could be compared with literature or extant theories, but can also suggest new questions that need to be asked (Creswell, 2003).

In a *quantitative study*, statistical analysis is normally used. *Statistics* is a tool to help us summarise and describe masses of data and to enable us to draw inferences or conclusions about their meaning. The field of statistics is typically divided into two components, *descriptive* and *inferential statistics*. *Descriptive statistics* are used to summarise our data in such a manner that it allows us to describe the data in a meaningful fashion.

Measures of central tendency measure the centre of a group of scores. It is an indication of the typical or average score in a distribution. The *mean* is the most common measure of central tendency. The mean is the arithmetic average score in the distribution. It is computed by adding all of the individual scores and then dividing the sum by the total number of scores in the distribution.

Measures of variability indicate the degree to which the observations differ from one another, or to which degree our scores are distributed around the mean. In other words, our variability is then also an indication of how representative the mean is as a measure of *central tendency*. The *standard deviation* is frequently reported in research papers as the *measure of variability*.

But most industrial psychological research deals with the relationship between two (or more) variables. In particular, we are usually interested in the extent to which we can understand one variable (the criterion or dependent variable) on the basis of our knowledge about another (the predictor or independent variable). A statistical procedure useful in determining this relationship is called the correlation coefficient. A *correlation coefficient* reflects the degree of linear relationship between two variables, which we shall refer to as *X* and *Y*. The symbol for a correlation coefficient is *r*, and its range is from $-1,00$ to $+1,00$. A correlation coefficient tells two things about the relationship between two variables: the direction of the relationship and its magnitude.

The *direction* of a relationship is either positive or negative. A *positive relationship* means that as one variable increases in magnitude, so does the other. A *negative relationship* means that as one variable increases in magnitude, the other gets smaller.

Regression is a statistical analysis that can be used after a significant relationship has been established between two variables. Regression will allow us to predict one variable based on another variable, if the two variables are strongly related. *Multiple regression* is a technique that enables the researcher to combine the predictive power of several variables to improve prediction of a criterion variable.

Inferential statistics enable us to draw conclusions that generalise from the subjects we have studied to all the people of interest by allowing us to make inferences based on probabilities. Let us look at an example to clarify this further. Inferential statistics function as a *control of error variance* and help us to determine if the difference between the groups is large enough for us to be able conclude that the difference is caused by the training programme. Inferential statistics allow us to calculate the probability of finding the observed results.

Meta-analysis is a secondary research analysis method that re-analyses findings or conclusions reached from previously conducted studies. The logic behind meta-analysis is that we can arrive at a more accurate conclusion regarding a particular research topic if we combine or aggregate the results of many studies that address the topic, instead of relying on the findings of a single study. The result of a meta-analysis study is often referred to as an 'estimate of the true relationship' among the variables examined, because we believe such a result is a better approximation of the 'truth' than would be found in any one study.

Step 5: Drawing conclusions from research (3 marks)

After analysing the data, the researcher draws conclusions. Generally, it is unwise to implement any major changes based on the results of only one study. As a rule, we prefer to know the results from several studies. We want to be as certain as possible that any organisational changes are grounded in repeatable, generalizable results. Research is a cumulative process. Researchers build on one another's work in formulating new research questions. They communicate their results by publishing articles in journals.

TOTAL: [50]

5. MEMORANDUM FOR ASSIGNMENT 02

1. The following are examples of negligent hiring:
 - a. Appointing a financial manager who has a previous conviction for fraud.
 - b. Appointing a convicted paedophile as a driver for a school bus.
 - c. Appointing someone with a previous conviction for failing to pay off debt as a receptionist.
 - d. Appointing someone who has falsified a degree certificate as a cashier in a supermarket.
 - e. Appointing someone with a previous conviction for negligent driving as a delivery person.

Answer:

1. a, b, c
2. b, c, e
3. b, c, d
4. a, b, e

Stringent ethical measures must be employed in the selection process when hiring of all potential candidates. The correct option is therefore **4**.

2. Maria applies for a position as a secretary at an international organisation. Which of the following requirements would not be granted as grounds for unfair discrimination?
1. The applicant must be a female.
 2. The applicant must be fluent in English.
 3. The applicant must be younger than 30 years.
 4. The applicant must be blonde.

The Employment Equity Act 55 of 1998 determines that an employer to whom the act applies (a “designated employer”) has the duty to implement affirmative action measures in respect of people in the designated groups in order to achieve employment equity. According to the Act, those that fall within the designated groups are black people (a generic term referring to Africans, coloureds and Indians), **women** and people with disabilities; therefore the correct option is **1**.

3. Thabo who is a company car dealer received a low performance rating because of the company’s low sales numbers, despite the fact that there was an economic recession in the past two years. This is an example of criterion _____
1. deficiency.
 2. contamination.
 3. irrelevance.
 4. bias

The economic recession is contaminating the rating of the company, the correct option is therefore **2**.

4. A research study you have conducted indicates that there is a significant negative relationship between employee job satisfaction and the number of days absent because of illness. This indicates that _____
1. as job satisfaction increases, employee absence increases.
 2. there is no link between job satisfaction and employee absences.
 3. as job satisfaction decreases, employee absence decreases.
 4. as job satisfaction decreases, employee absence increases.

A negative relationship means if one variable increases the other decreases and *vice versa*. The correct option is **4**.

5. A data gathering method mostly used for quantitative research is _____
1. observations.
 2. focus groups.
 3. archival data
 4. questionnaires.

Quantitative research uses numbers (or statistical analysis) and therefore utilises questionnaires to answer a given research question. Archival data also called documentary sources is material that is readily available, where the data has already been captured in one form or another. Observations and focus groups are mostly used for a qualitative type of research. The correct answer is **4**.

6. Johan, an estate agent is rated on his monthly sales alone and gets a low rating. This is in spite of the overall poor performance in the real estate market. This is an example of criterion _____
1. contamination.
 2. deficiency.
 3. bias.
 4. irrelevance.

The poor performance in the real estate market is contaminating the ratings given by the company. Gathering criteria measures with no checks on their relevance or worth before use often leads to contamination. Therefore this is an example of criterion contamination. The correct option is **1**.

7. Thembi who is a customer service consultant employed at a large shopping centre is rated only on the number of customers whose queries she managed to solve telephonically. The physical assistance which she provided to customers in the store is not taken into consideration. This is an example of criterion _____
1. irrelevance.
 2. bias.
 3. deficiency.
 4. contamination.

The actual criteria fail to overlap with the conceptual criteria, that is, how deficient the actual criteria are in representing the conceptual ones. This is an example of criterion deficiency. The correct option is **3**.

8. Riaan, an employee at United Airlines receives an above average rating during his performance evaluation, based on the fact that he obtained his degree at a prestigious university. This is an example of criterion _____
1. deficiency.
 2. irrelevance.
 3. bias.
 4. contamination

Criterion relevance refers to important organisational, team and individual outcomes such as work-related behaviours, outputs, attitudes, or performance in training, as indicated by a review of information about the job or work. Relevance therefore relates to the adequacy of criterion measures as indexes of the relative abilities of individuals to fulfil such purposes. Most jobs have various objectives (rather than just one); therefore the issue of using a single overall, relevant criterion, or various separate but relevant criteria, for the individual objectives will have to be considered.

The university where the employee studied is irrelevant to his performance. The correct option is **2**.

9. Matrix Computers has developed a unique model for their organisation and nothing similar to it exists in the market, although there is a great need for it. The employee who has developed it has a unique skills set and is not willing to share his knowledge with other companies. It can be classified as a _____ competency.
1. strategic
 2. critical
 3. key
 4. core

A core competence is a special skill that an individual possesses which is part of his or her skill set. Therefore the correct option is **4**.

10. Human resource planning is a means of _____
1. obtaining information about a person's potential behaviour that guides decision making through assessment.
 2. assessing people to ascertain whether they will be competent enough to work in the organisation.
 3. ensuring that human resources move out of their "comfort zones".
 4. obtaining the correct number of human resources with the right skills.

HR planning should ensure that the organisation has the right number of people with the right skills in the right place at the right time. The correct option is **4**.

11. Which psychologist introduced the concept of IQ?
1. Cascio
 2. Alfred Binet
 3. Terman
 4. Binet Simon

Alfred Binet was the inventor of the concept the intelligence quotient, or IQ which later used by Lewis Terman and other researchers in the development of the first IQ tests and based on his work. The correct option is **2**.

12. What are the basic psychometric properties that a predictor should have in order to enhance the fair and unbiased use of that predictor measure?
1. predictive validity and norms
 2. validity and reliability
 3. internal consistency and alternate form reliability
 4. standardised instructions and validity

In Psychology the quality of a measuring device (psychological instrument/test/measure) is based on the psychometric characteristics, namely, its validity and reliability. The correct option is **2**.

13. Indigo Enterprises is an organisation that has to fill posts which require high skills levels and knowledge unique to its organisation, they will therefore focus on the following methods of recruitment:
- a. skills inventories
 - b. career development
 - c. job posting
 - d. employment agencies
 - e. supervisor recommendations

The correct combination is _____

1. a, b and e.
2. b, c and d.
3. a, d and c.
4. c, d and e.

In the event of filling highly unique posts, an organisation needs to utilise all the relevant opportunities and specialist experts that are available to get the best person-job fit. The correct option is therefore **4**.

14. Strategic planning gives an organisation the competitive advantage through _____

1. providing human resource information to other organisational functions.
2. fair representation of the population.
3. policies and procedures.
4. a supply of highly qualified staff.

Three aspects related to the strategic planning process, namely (1) strategic assessment, (2) strategy formulation and (3) strategy implementation. Firstly, strategic planning starts with management making a *strategic assessment* of the current position of the organisation. Secondly, an assessment is made of where the company wants to be and strategies are formulated to achieve the strategic goals. Lastly, strategy implementation comprises an assessment of how the company plans to achieve its strategic goals. The correct answer is **3**.

15. An adverse impact of selection tests can be managed by using the following approach:

1. changing the selection ratios
2. using only culture-free tests
3. collecting evidence of employee performance to justify the selection ratio
4. collecting positive validation evidence for the tests

The greater the degree of adverse impact resulting from the use of a test or assessment instrument, the higher the validity of the test should be to justify this. The correct option is **4**.

16. The purpose of psychological assessment is to assist organisations to _____

1. identify and attract suitable candidates.
2. retrench people that are not performing.
3. identify suitable people for a specific job.
4. retain someone from a designated group.

Psychological assessment is done to identify candidates that have the best potential to perform in a specific position. The correct option is **3**.

17. The basic psychometric properties that needs to be reported for all predictors are _____

1. fairness and bias.
2. standardised instructions.
3. validity and reliability
4. consistencies and norms.

Validity and reliability are the basic psychometric properties that a predictor should have. The correct option is **3**.

18. How does human resource management overlap with industrial and organisational psychology?

1. Both disciplines work in the organisation.
2. Both disciplines aim to enhance job performance.
3. Both disciplines focus on research in the organisation.
4. Both disciplines aim to balance work life.

Both influence the effective functioning of the organisation. The correct option is **1**.

19. The major sub-fields of industrial and organisational psychology are _____
1. consumer psychology, psychometrics, personnel psychology, career psychology, ergonomics, employment relations and organisational psychology.
 2. consumer psychology, psychometrics, motivation psychology, career psychology, employment relations and organisational psychology.
 3. clinical psychology, psychometrics, personnel psychology, career psychology, ergonomics, employment relations and organisational psychology.
 4. consumer psychology, psychometrics, personnel psychology, career psychology, ergonomics, cultural relations and organisational psychology.

The sub-fields of IOP are consumer psychology, psychometrics, personnel psychology, career psychology, ergonomics, employment relations and organisational psychology. The correct option is **1**.

20. In order to make an accurate prediction, trend projection _____
1. cannot be relied on.
 2. is used exclusively in the leisure industry.
 3. relates a single factor to employment.
 4. must be used together with other techniques.

Trend projection relates to a single factor such as room occupancy to employment. Trend analysis involves studying the company's employment levels over the past five years or so to predict future needs of the organisation. The correct option is therefore **3**.

TOTAL: [20]

6. CONCLUSION

We trust that you found the knowledge that you have gained in this module of practical use in your future career.

Best wishes with your preparation for the examinations.

Kind regards

Your IOP3702 lecturers

Michael Leary
Hartmut von der Ohe