Recent Trends In Education

Volume - 4

Chief Editor

Dr. A.C. Lal Kumar

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Chapter - 2

Perspectives of School Assessment in the Curriculum through the Eyes of the Administrative and Teaching Stakeholders in Nigeria

Fehintola Joseph Olusola

Abstract

This chapter focuses on tools useful in the assessment of cognitive domain of learning. The procedures for constructing and using continuous assessment, paper-pencil test, quizzes, open note test, computer-based testing, formative assessment, summative assessment, school based assessment, project based assessment, presentations assessment, journals assessment, thought process assessment, resiliency assessment, ability to work in a group assessment, fulfilling requirement assessment, questionnaire assessment and survey assessment are discussed. The chapter also discusses the advantages and limitations of the assessment tools in the teaching-learning process.

Keywords: perspective, assessment, curriculum, administrative, teaching, stakeholders

Introduction

This chapter focuses on tools useful in the assessment of cognitive domain of learning. Some of the useful assessments in the cognitive domain of learning are discussed in this chapter. The tools discussed are continuous assessment, paper-pencil test, quizzes, open note test, computer-based testing, formative assessment, summative assessment, school based assessment, project based assessment, presentations assessment, journals assessment, thought process assessment, resiliency assessment, ability to work in a group assessment, fulfilling requirement assessment, questionnaire assessment and survey assessment are discussed. The chapter also discusses the advantages and limitations of the assessment tools in the teaching-learning process.

Continuous assessment

Continuous Assessment is the educational policy in which students are examined continuously over most of the duration of their education, the results of which are taken into account prior leaving school. It is often proposed or used as an integral parts of a final examination system. There are several types of continuous assessment including daily class work, course related projects and papers, and practical work. Continuous Assessment is assessments that take place over a period of time. In other words, you will be assessed right through your learning process and not only after the learning process. By doing continuous assessment you can track the improvement (if any) of the learner, you will be able to give more support and guidance, and the learner will have more opportunities to improve. Continuous assessment can provide early indicators of the likely performance of students, something that can be of great help to the students themselves-as for they have some mistake in your Marks then you would be transfer the marks. And in the other hand it's useful to both students and the faculty.

Continuous assessment provides students with a constant stream of opportunities to prove their mastery of material and sends the message that everyone can succeed if given enough time and practice. This reduces the anxiety and finality around testing and heightens the emphasis on the learning itself. When mastery instead of competition with other students becomes the point of assessment, the focus shifts from superficial competition to true understanding and personal learning goals.

In a system of continuous assessment, advanced students can progress through material at their own pace and remain engaged by pursuing more challenging work as they pass out of the basics. In this sense, the standards for such students stretch to help each student maximize potential. Because success is defined on an absolute and individualized basis, students cannot be satisfied with their achievements relative to others; they are encouraged to seek their own course and take responsibility for their learning.

The problem with administering assessments only once in a while is that the primary aim is to compare students while at the same time allowing them to "pass" to the next level. This produces a situation in which the purpose of assessment is muddled: the tendency is to let students level up (because, regardless of standards, everyone is generally expected to pass) although they may not truly grasp the material or have a very weak understanding of it. For this reason, students may start the next level at a weaker state with no opportunity to correct their misunderstandings.

Increased self-awareness for students who, through continuous assessment, come to understand their proficiencies and knowledge gaps. Time and again, we encounter evidence that self-awareness-understanding of how one feels, thinks, and learns-is one of the most significant factors in professional and personal success. The more continuously we assess students, the more knowledge they can gain about themselves-what it takes for them to master something, how they can approach problems differently, what their weak spots are, and how to eliminate them.

Capacity to uncover interdisciplinary relationships between subject domains and concepts. Continuous assessment allows us to refine our understanding of the content that we are teaching students. We might discover that effective remediation in a subject requires attention to another subject or that the root of common misunderstandings within a subject is something altogether unexpected.

Paper-pencil-test

A test or examination (formal or informal, exam or evaluation) is an assessment intended to measure a testes knowledge, skill, aptitude, physical fitness, or classification in many other topics. A test may be administered verbally, on paper, on a computer, or in a predetermined area that requires a test taker to demonstrate or perform a set of skills. Tests vary in style, rigor and requirements. For example, in a closed book test, a test taker is usually required to rely upon memory to respond to specific items whereas in an open book test, a test taker may use one or more supplementary tools such as a reference book or calculator when responding. A test may be administered formally or informally. An example of an informal test would be a reading test administered by a parent to a child. A formal test might be a final examination administered by a teacher in a classroom or an I.Q. test administered by a psychologist in a clinic. Formal testing often results in a grade or a test score. A test score may be interpreted with regards to a norm or criterion, or occasionally both. The norm may be established independently, or by statistical analysis of a large number of participants. An exam is meant to test a child's knowledge or willingness to give time to manipulate that subject.

A standardized test is any test that is administered and scored in a consistent manner to ensure legal defensibility. Standardized tests are often used in education, professional certification, psychology (e.g., MPP) and many other fields. A non-standardized test is usually flexible in scope and format, variable in difficulty and significance. Since these tests are usually developed by individual instructors, the format and difficulty of these tests may not be widely adopted or used by other instructors or institutions. A

non-standardized test may be used to determine the proficiency level of students, to motivate students to study, and to provide feedback to students. In some instances, a teacher may develop non-standardized tests that resemble standardized tests in scope, format, and difficulty for the purpose of preparing their students for an upcoming standardized test. Finally, the frequency and setting by which a non-standardized tests are administered are highly variable and are usually constrained by the duration of the class period. A class instructor may for example, administer a test on a weekly basis or just twice a semester. Depending on the policy of the instructor or institution, the duration of each test itself may last for only five minutes to an entire class period.

In contrasts to non-standardized tests, standardized tests are widely used, fixed in terms of scope, difficulty and format, and are usually significant in consequences. Standardized tests are usually held on fixed dates as determined by the test developer, educational institution, or governing body, which may or may not be administered by the instructor, held within the classroom, or constrained by the classroom period. Although there is little variability between different copies of the same type of standardized test (e.g. UTME, SSCE), there is variability between different types of standardized tests.

Any test with important consequences for the individual test taker is referred to as a high-stakes test. A test may be developed and administered by an instructor, a clinician, a governing body, or a test provider. In some instances, the developer of the test may not be directly responsible for its administration. For example, Educational Testing Service (ETS), a nonprofit educational testing and assessment organization, develops standardized tests such as the JUPET but may not directly be involved in the administration or proctoring of these tests. As with the development and administration of educational tests, the format and level of difficulty of the tests themselves are highly variable and there is no general consensus or invariable standard for test formats and difficulty. Often, the format and difficulty of the test is dependent upon the educational philosophy of the instructor, subject matter, class size, policy of the educational institution, and requirements of accreditation or governing bodies. In general, tests developed and administered by individual instructors are non-standardized whereas tests developed by testing organizations are standardized.

Written tests are tests that are administered on paper or on a computer (as an exam). A test taker who takes a written test could respond to specific items by writing or typing within a given space of the test or on a separate form or document. In some tests; where knowledge of many constants or

technical terms is required to effectively answer questions, like Chemistry or Biology-the test developer may allow every test taker to bring with them a cheat sheet.

A test developer's choice of which style or format to use when developing a written test is usually arbitrary given that there is no single invariant standard for testing. Be that as it may, certain test styles and format have become more widely used than others. Below is a list of those formats of test items that are widely used by educators and test developers to construct paper or computer-based tests. As a result, these tests may consist of only one type of test item format (e.g., multiple choice test, essay test) or may have a combination of different test item formats (e.g., a test that has multiple choice and essay items).

Multiple choice

In a test that has items formatted as multiple choice questions, a candidate would be given a number of set answers for each question, and the candidate must choose which answer or group of answers is correct. There are two families of multiple choice questions. The first family is known as the True/False question and it requires a test taker to choose all answers that are appropriate. The second family is known as One-Best-Answer question and it requires a tested to answer only one from a list of answers.

There are several reasons to using multiple choice questions in tests. In terms of administration, multiple choice questions usually requires less time for test takers to answer, are easy to score and grade, provide greater coverage of material, allows for a wide range of difficulty, and can easily diagnose a testee's difficulty with certain concepts. As an educational tool, multiple choice items test many levels of learning as well as a test taker's ability to integrate information, and it provides feedback to the test taker about why distractors were wrong and why correct answers were right. Nevertheless, there are difficulties associated with the use of multiple choice questions. In administrative terms, multiple choice items that are effective usually take a great time to construct. As an educational tool, multiple choice items do not allow test takers to demonstrate knowledge beyond the choices provided and may even encourage guessing or approximation due to the presence of at least one correct answer. For instance, a test taker might not work out explicitly that, but knowing that, they would choose an answer close to 48. Moreover, test takers may misinterpret these items and in the process, perceive these items to be tricky or picky. Finally, multiple choice items do not test a testee's attitudes towards learning because correct responses can be easily faked.

Alternative response

True/False questions present candidates with a binary choice-a statement are either true or false. This method presents problems, as depending on the number of questions, a significant number of candidates could get 100% just by guesswork, and should on average get 50%.

Matching type

A matching item is an item that provides a defined term and requires a test taker to match identifying characteristics to the correct term.

Completion type

A fill-in-the-blank item provides a test taker with identifying characteristics and requires the test taker to recall the correct term. There are two types of fill-in-the-blank tests. The easier version provides a word bank of possible words that will fill in the blanks. For some exams all words in the World Bank are used exactly once. If a teacher wanted to create a test of medium difficulty, they would provide a test with a word bank, but some words may be used more than once and others not at all. The hardest variety of such a test is a fill-in-the-blank test in which no word bank is provided at all. This generally requires a higher level of understanding and memory than a multiple choice test. Because of this, fill-in-the-blank tests (with no word bank) are often feared by students.

Essay

Items such as short answer or essay typically require a test taker to write a response to fulfill the requirements of the item. In administrative terms, essay items take less time to construct. As an assessment tool, essay items can test complex learning objectives as well as processes used to answer the question. The items can also provide a more realistic and generalizable task for test. Finally, these items make it difficult for test takers to guess the correct answers and require test takers to demonstrate their writing skills as well as correct spelling and grammar.

The difficulties with essay items are primarily administrative: for example, test takers require adequate time to be able to compose their answers. When these questions are answered, the answers themselves are usually poorly written because test takers may not have time to organize and proofread their answers. In turn, it takes more time to score or grade these items. When these items are being scored or graded, the grading process itself becomes subjective as non-test related information may influence the process. Thus, considerable effort is required to minimize the subjectivity of

the grading process. Finally, as an assessment tool, essay questions may potentially be unreliable in assessing the entire content of a subject matter. Instructions to exam takers rely on the use of command words which direct the examinee to respond in a particular way, for example by describing or defining a concept, comparing and contrasting two or more scenarios or events.

Quizzes

A quiz is a brief assessment which may cover a small amount of material that was given in a class. Some of them cover two to three lectures that were given in a period of times as a reading section or a given exercise in were the most important part of the class was summarize. However, a simple quiz usually does not count very much, and instructors usually provide this type of test as a formative assessment to help determine whether the student is learning the material. In addition, doing this at the time the instructor collected all can make a significant part of the final course grade.

Open-note tests

Though not as popular as the closed-note test, open-note tests are slowly rising in popularity. An open-note test allows the test taker to bring in all of their notes and use them while taking the test. The questions asked on open-note exams are typically more thought provoking and intellectual than questions on a closed-note exam. Rather than testing what facts you know, open-note exams force you to apply the facts to a broader question. The main benefit that is seen from open-note tests is that they are a better preparation for the real world where you don't have to memorize and have anything you need at your disposal.

Computer-based testing

Computer-based testing is a method of administering tests electronically using a computer or an equivalent electronic device. Computer-based training (CBT) is any course of instruction whose primary means of delivery is a computer. A CBT course (sometimes called courseware) may be delivered via a software product installed on a single computer, through a corporate or educational intranet, or over the Internet as Web-based training

Electronic assessment, also known as e-assessment, online assessment, computer assisted/mediated assessment and computer-based assessment, is the use of information technology in various forms of assessment such as educational assessment, health assessment, psychiatric assessment, and psychological assessment. This may utilize an online computer connected to

a network. This definition embraces a wide range of student activity ranging from the use of a word processor to on-screen testing. Specific types of e-assessment include multiple choice, online/electronic submission, computerized adaptive testing and computerized classification testing.

Different types of online assessments contain elements of one or more of the following components, depending on the assessment's purpose: formative, diagnostic, or summative. In education assessment, large-scale examining bodies find the journey from traditional paper-based exam assessment to fully electronic assessment a long one. Practical considerations such as having the necessary IT hardware to enable large numbers of student to sit an electronic examination at the same time, as well as the need to ensure a stringent level of security are among the concerns that need to resolve to accomplish this transition.

E-marking is one way that many exam assessment and awarding bodies, such as Joint Matriculation and Examinations Board, are utilizing innovations in technology to expedite the marking of examinations. In some cases, e-marking can be combined with electronic examinations, whilst in other cases students will still handwrite their exams with papers scanned in securely and uploaded into an e-marking system.

There are two types of computer-based tests: linear and adaptive. A linear test is a full-length exam in which the computer selects different questions for you without consideration of your performance level. It consists of a full range of test questions-from easiest to most difficult-but not always in order. The linear test is scored in the same way as a paper-based test.

A computer adaptive test is one in which the computer selects the range of questions based on your performance level. These questions are taken from a very large pool of possible questions categorized by content and difficulty.

When you take a paper-based test, you will find that you are asked to answer questions ranging from easy to hard. In a computer-based adaptive test, each test-taker receives questions that are at the right level of difficulty for his or her ability. These tests begin with a question that is of medium level of difficulty for most test takers. After each question is answered, the computer uses the answer and all previous answers to determine which question will be answered next. The next question is one that best follows the previous performance. This means that different test takers-even in the same room on the same day-will receive different questions.

Since adaptive test questions are selected according to performance on previous questions, you spend less time than you would on a paper-based test on questions that are either too easy or too hard. If you make a careless error and answer incorrectly or if you answer correctly by making a lucky guess, the questions you later receive may not be appropriate to your knowledge or skill level. You cannot skip ahead or go back like you can on a paper-based exam. If you are uneasy because you are accustomed to reviewing an entire test, or section of a test, before filling in any answers, you might find it helpful to practice with a test preparation software program that simulates the test.

Formative assessment

Formative assessment refers to a wide variety of methods that teachers use to conduct in-process evaluations of student comprehension, learning needs, and academic progress during a lesson, unit, or course. Formative assessment in other words, is for learning, while summative assessments are of learning. Practice in a classroom is formative to the extent that evidence about student achievement is elicited, interpreted, and used by teachers, learners, or their peers, to make decisions about the next steps in instruction that are likely to be better, or better founded, than the decisions they would have taken in the absence of the evidence that was elicited. Any assessment can be used formatively and it's important to distinguish between the process of formative assessment and the actual assessments used by teachers. Making this distinction is crucial because a common misinterpretation of formative assessment is that a series of summative assessments constitutes formative assessment.

Formative assessments differ from summative assessments in a few ways. For one, formative assessments do not necessarily need to be graded. Since they serve as checkups, it is more about the information rather than the end score. The information gleaned helps shape instruction and future content. Whereas a summative assessment usually takes the form a final pen-and-paper test or final project, a formative assessment can take the form of many things. It could be a simple writing assignment, a chance to draw, a quiz, or even a short discussion with a student.

Summative assessments

Summative assessments are used to evaluate student learning, skill acquisition, and academic achievement at the conclusion of a defined instructional period-typically at the end of a project, unit, course, semester, program, or school year. Summative assessment (or summative evaluation) refers to the assessment of participants where the focus is on the outcome of

a program. This contrasts with formative assessment, which summarizes the participants' development at a particular time. Summative assessment is widely taught in educational programs throughout the world, Nigeria inclusive.

The goal of summative assessment is to evaluate student learning at the end of an instructional unit by comparing it against a standard or benchmark. Note, 'the end' does not necessarily mean the end of an entire course or module of study. Summative assessments may be distributed throughout a course, after a particular unit (or collection of topics) has been taught, and there are advantages to doing so. In many disciplines in some advanced countries especially in the UK Higher Education sector, there has been a move away from 100% end of course assessments, to a model where summative assessments are distributed across a course, which helps to scaffold students' learning. Summative assessment usually involves students receiving a grade that indicates their level of performance, be it a percentage, pass/fail, or some other form of scale grade. Summative assessments are weighted more than formative assessments.

Summative assessment can be used to refer to assessment of educational faculty by their respective supervisor, with the object of measuring all teachers on the same criteria to determine the level of their performance. In this context summative assessment is meant to meet the school or student's needs for teacher accountability. The evaluation usually takes the shape of a form, and consists of check lists and occasionally narratives. Areas evaluated include classroom climate, instruction, professionalism, and planning and preparation. Methods of summative assessment aim to summarize overall learning at the completion of the course or unit are, viz: Questionnaires, Surveys, Interviews, Observations, Testing and Projects (a culminating project that synthesizes knowledge).

School based assessment

School-based assessment tasks are developed by teachers and are required to meet the requirements of the syllabus for the course. These tasks are conducted by teachers in accordance with the school's senior secondary assessment policy. The Authority provides advice to assist schools in developing and/or reviewing their policy. Schools can use different modes of broad-based assessments, including observation of students' performance in classroom and participation in project work to promote learning in a more flexible manner. Another benefit is advocating students' all-round development which gives a more comprehensive picture of individual students' learning needs, as well as fosters the positive wash back effects

of public examinations. It also helps to address the limitations of judging students on their performance in one single examination.

Once a student achieves an outcome the teacher records this achievement and the student moves on to another outcome. Classroom assessment by the teacher involves observing students and determining if they can demonstrate that an outcome has been achieved. This can be done in a variety of ways. The classroom activities are designed to give students many opportunities to achieve outcomes.

Traditional quizzes or tests are just one way for a student to demonstrate their abilities. Presentations, oral discussions, project work and experimentation are some other ways for students to demonstrate their abilities. Teachers spend a significant amount of time designing activities for students and observing the students as they perform the activities. Observation provides the teacher with evidence for deciding that a student has achieved an outcome.

At each report the student receives a letter grade indicating the number of outcomes achieved in relation to the number expected. Reporting to students and parents also changes in that students do not receive a mark but instead they are told which outcomes have been achieved and which still remain. There are expectations for the number of outcomes to be achieved at certain points in time. This number varies between subjects as some subjects have more outcomes than others. At each report the student receives a letter grade indicating the number of outcomes achieved in relation to the number expected. While there are expectations for each reporting period, the most significant level of achievement comes at the end of the year when the student can see all of the outcomes which they have achieved.

As the outcomes continue from year to year, students move to the next grade with their age group and begin the next year with the outcomes that are next for each subject. Learning Support Teams are active in all schools, helping students catch up should they fall behind their age group in terms of outcomes achieved. In this approach, basic skills and knowledge required by a student will be indicated and students do not have to compare with the others. Under the education reforms in which a new culture of learning and teaching is to be cultivated, schools can use different modes of broad-based assessments, including observation of students' performance in classroom and participation in project work to promote learning in a more flexible manner. Another benefit is advocating students' all-round development which gives a more comprehensive picture of individual students' learning needs, as well as fosters the positive wash back effects of public

examinations. It also helps to address the limitations of judging students on their performance in one single examination.

Project based assessment

Project Based Assessments that compile into a project-based assessment are also a technique option for educators looking to review the ability of students to be creative, diverse and authentic with their course work and the experience gained throughout the time frame of the class. Project Based Assessment is a student-centred pedagogy that involves a dynamic classroom approach in which it is believed that students acquire a deeper knowledge through active exploration of real-world challenges and problems. Students learn about a subject by working for an extended period of time to investigate and respond to a complex question, challenge, or problem. It is a style of active learning and inquiry-based learning. PBA contrasts with paper-based, rote memorization, or teacher-led instruction that presents established facts or portrays a smooth path to knowledge by instead posing questions, problems or scenarios.

Thomas Markham (2011) describes project- assessment (PBA) thus: "PBA integrates knowing and doing. Students learn knowledge and elements of the core curriculum, but also apply what they know to solve authentic problems and produce results that matter. PBA students take advantage of digital tools to produce high quality, collaborative products. PBA refocuses education on the student, not the curriculum-a shift mandated by the global world, which rewards intangible assets such as drive, passion, creativity, empathy, and resiliency. These cannot be taught out of a textbook, but must be activated through experience. Greeno (2006) has associated project-based learning with the "situated learning" perspective and with the constructivist theories of Jean Piaget. Blumenfeld (2017) elaborate on the processes of PBA: "Project-based assessment is a comprehensive perspective focused on teaching by engaging students in investigation. Within this framework, students pursue solutions to nontrivial problems by asking and refining questions, debating ideas, making predictions, designing plans and/or experiments, collecting and analyzing data, drawing conclusions, communicating their ideas and findings to others, asking new questions, and creating artifacts. The basis of PBA lies in the authenticity or real-life application of the research. Students working as a team are given a "driving question" to respond to or answer, then directed to create an artifact (or artifacts) to present their gained knowledge. Artifacts may include a variety of media such as writings, art, drawings, three-dimensional representations, videos, photography, or technology-based presentations.

Proponents of project-based learning cite numerous benefits to the implementation of its strategies in the classroom-including a greater depth of understanding of concepts, broader knowledge base, improved communication and interpersonal/social skills, enhanced leadership skills, increased creativity, and improved writing skills. Another definition of project-based learning includes a type of instruction, where students work together to solve real-world problems in their schools and communities. Successful problem-solving often requires students to draw on lessons from several disciplines and apply them in a very practical way. The promise of seeing a very real impact becomes the motivation for learning. Project-based assessment emphasizes learning activities that are long-term, interdisciplinary and student-centered. Unlike traditional, teacher-led classroom activities, students often must organize their own work and manage their own time in a project-based class. Project-based instruction differs from traditional inquiry by its emphasis on students' collaborative or individual artifact construction to represent what is being learned. Project-based assessment also gives students the opportunity to explore problems and challenges that have real-world applications, increasing the possibility of long-term retention of skills and concepts.

Presentations assessment

Presenting work is an essential part of maker education. When students present they must explain the thought process they went through in order to get to the final result. They'll communicate their passions as they go, while also communicating essential knowledge to their peers. In getting to see each other's projects, your students will inspire each other creatively, making your maker education adventures a self-feeding cycle. And in terms of grading, you'll find it easier to attach a grade to this aspect of making than to the project itself.

Journals assessment

If a big part of the value of maker education is in learning not to fear failure and instead to emphasize an iterative design process, it is important that students be able to evaluate themselves. No, not by giving them a letter grade, but by reflecting on what they have done, how well it did or did not work, and positing new theories on what they could do better next time. For that, maintaining journals, whether written or done as video diaries or podcasts, is key. Evaluate students based on how self-reflective and honest they are being with themselves.

Portfolios assessment

Oftentimes with maker work, it is most helpful to see the work as it comes together as a form of formative assessment. For this, portfolios are helpful, and they give you a deeper sense of the work that went into the larger project. Traditional hard copy portfolios can be effective, as can digital portfolios, which compile both digital work like coding and photos and videos of projects into one spot.

Thought processes assessment

Rewarding the "Hows" of what went into thinking out the project is far more important than rewarding the failure or success of the actual project itself.

Consider the following questions when grading:

- How have your students thought through a problem?
- How did your students troubleshoot?
- How strong were their skills of inquiry when they needed to go out and do more research?
- How creative were they when they had backed themselves into a design corner?

Resiliency assessment

This one can be a little bit more difficult to evaluate in cases where projects go smoothly, but if you have given your students a particularly difficult project, giving a grade for resiliency might be helpful. This will help reward students for taking risks rather than playing it safe-a key part of becoming a successful maker.

Ability to work in a group assessment

If your maker projects require collaboration, then giving a grade for doing well with group work is key. Groups that wind up with a great project but fought each other every step of the way shouldn't be rewarded-just imagine what they could have made had they been on the same team. Emphasize the importance of peaceful collaboration.

Fulfilling requirements assessment

Sometimes, your maker projects are just meant to be for fun. Other times, you have specific curricular goals you are trying to meet, and clear specifications for projects, whether they are as broad as, "must include a wheel" or as specific as "must deliver ice without crushing it". In this case,

it's important that the projects actually meet the specifications, even if it is done in the most creative of ways. You can also consider making requirements such as "degree of creativity," which will reward the breadth of thinking more than the actual usefulness of the design.

Questionnaire assessment

A questionnaire is a specific set of written questions which aims to extract specific information from the chosen respondents. The questions and answers are designed in order to gather information about attitudes, preferences and factual information of respondents.

Survey assessment

Questionnaires focus on the sampling of a smaller population statistically representative of the wider population in question. This sample, in turn, proves more manageable to study, reducing the investigator's overall workload and costs while also making it easier to ensure homogeneity and quality within a smaller data-set. Three primary categories of surveying sampling include probability/random sampling (in which every unit of the population has a probability of being included in the sample) and non-probability/non-random sampling (in which certain elements of the population are intentionally excluded from the possibility of being part of the sample). Stratified sampling also involves the identification of sub-populations from the overall population, which are then sampled from randomly. Once investigators have drawn their sample population, questions are administered to respondents. A number of data collection approaches can be followed to collect answers from the sample. Each approach have competing advantages and disadvantages, and may be more or less appropriate depending on the context, cost, coverage offered of the sample population, flexibility, accuracy and anticipated response rates.

Conclusion

This chapter describes various assessment tools based on activities carried out within the school environment. The process enables evaluation of the relationship between school-based activities and students' development. Guides on weightings of assessment are given. There is some discussion of the perceived advantages and disadvantages of the assessment tools.

Summary

This chapter discussed the various cognitive assessment tools in use in most of institutions in Nigeria educational system for the readers. Particular emphasis was given to the procedure in conduct of using it, the advantages

and disadvantages of it. Furthermore, the chapter discussed in detail the types and characteristics of achievement tests/assessment.

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