



THE NECESSITY FOR RECONFIGURING INTRODUCTORY LEVEL PROPERTY VALUATION EXAMINATIONS IN NIGERIA: A VIEW FASHIONED BY EXPERIENCE

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Abstract

Whether written or oral, practical or theoretical, examinations are designed to evaluate ability. In the core estate management subject of property valuation, which is introduced at 200 level in Nigeria's tertiary education system, learners are tested by written examinations. Following the 2022 introduction of a revised curriculum by the accreditation body, the National Universities Commission (NUC), this paper examines the appropriateness of instituting corresponding changes in examination practice. This is a discourse highlighting an extant situation which may hinder learners being tested across all sections of the introductory valuation examination curriculum, thereby making difficult the acquisition of a balanced knowledge. This would be avoided if they were deliberately required to demonstrate capacity in the three identified areas of the syllabus. Being a viewpoint, the approach of the paper is a review of secondary data assembled from published literature, the archives, online sources, and also, the practical teaching experience of the author in a Nigerian federal university. The review indicates that current practice does not usually offer a spread of questions fully reflective of the three broad sections of the curriculum, namely, valuation mathematics; land and property markets; and the money and capital markets. In addition, there is an absence of compulsory sections and compulsory questions. These facts of current practice and the findings from related research are used to consider the necessity, modalities and potential benefits of a reconfiguration. The conclusion is that a reconfiguration is necessary and important because existing deficiencies may deny learners an adequate foundation, placing them at a disadvantage in meeting future challenges in learning and in practice. Therefore, a reconfiguration is recommended to overcome extant shortcomings. Also, to upgrade the examination to a better and more comprehensive test of knowledge and capacity, particularly with the introduction of the suggested complementary and supplementary instructional input.

Keywords: Examinations; Estate management; Nigeria, Property valuation; Real estate education

INTRODUCTION

The common perception of examinations is that they evaluate ability. This seems to be the universally held view because examinations are the means by which learners progress from one stage of educational development to another, and also, qualify as certified professionals. Examinations gauge the learner's capacity to acquire knowledge and skills from the teacher. All other things being equal, the extent of knowledge demonstrated by learners should be reflective of the effectiveness of the instructor, the instructional method and the system in general. The system should make it possible for people to learn, unlearn and re-learn.

However, there is a dissenting view as to the effectiveness of examinations in education. This is advocated by the school of thought which believes that examinations do not reflect a student's true ability (Graduate Recruitment Bureau, 2008). For instance, it is the view of a majority of teachers in Britain and their ex-students that examination performance has proven incapable of foretelling the future success of students (Chartered Institute of Educational Assessors as reported by GRB, 2008). Regardless, no alternative appears to have been found and that is why examinations remain the main means for the assessment of learners. There is no denying that examinations assess a learner's preparedness. In the case of tertiary and professional education, the preparedness of the student to join the workforce and become an effective contributor to society and development. It is also relevant to observe that a graduate who obtained below average results in school probably because they did not work hard enough, but happens to become successful later in life, most likely had to teach themselves to work harder, unlearn and relearn. In effect, their success was most likely achieved by learning anew how to learn in the real-world environment of work, what they failed to learn effectively in the school environment. Thus, there cannot be one explanation only for instances where erstwhile poor school performers go on to attain success in the future. It is rational and defensible to say that examinations will effectively test ability if they are well configured; if teaching is effective and learners diligent; and above all, the educational system well planned. If they do not effectively test ability, it is justifiable to say that the blame should not be borne by examinations alone.

In Nigeria, formal education is organised at the basic, intermediate and tertiary levels. Examinations at the tertiary level are more rigorous than at the lower levels generally in the sense that learners are required to find out about things rather than being entirely told about things (Onwuanyi & Adekanmi, 2022a). In particular, there is a difference in the sense that learners are being prepared for joining the work force where they will apply the knowledge and skills which will be transferred to them. The educational system ensures that the successful transfer of knowledge and skills is always tested and confirmed through competitive tests. These tests logically involve what learners have been told as well as what they have discovered on their own under the guidance of instructors.

In concept and practice, an examination is a formal test taken to demonstrate knowledge or ability in a particular subject or to obtain a qualification (Collins English Dictionary, 2024). Examinations

also provide the basis for deciding whether a student deserves to be promoted to the next higher class. In higher and professional education which involves the training of manpower, examinations decide whether the student can cope with the demands of the workplace. At this level of education, instructors usually provide insights which have the benefit of propelling learners to a level where they can start learning on their own. This is the foundation to the development of a capacity for lifelong learning which can transform education to its true purpose of producing a learning society, not just a literate one (Ammons, 2021).

Formal education involves examinations where learners undertake various types of tests, oral as well as written. They may require written responses, practical tests, or oral responses (Collins English Dictionary, 2024). A written examination has the purpose of encouraging a candidate to review all the learning achieved in a module to ensure a broad understanding of the module subject area (Durham University, 2024). The written examination will determine the following three issues: knowledge and understanding; analysis and interpretation of both qualitative and quantitative data; and the ability to present logical arguments with clarity and coherence (Curriculum Online, 2024). It is important to note that the written examination takes many forms. These include: essays, short answers, multiple choice, fill-in-the-blanks, true/false questions, matching questions, diagram-based questions and critical thinking and problem-solving questions (Usher Education, 2024). There are also computer-based tests, open-book exams and take-home exams.

Educational planning is a vital component of educational development. Quality education is pursued through setting goals and objectives and modalities for the achievement of the prescribed action plan. One vital aspect is the design of course modules which can comprehensively cover the scope of knowledge required at each level of education. This is reflected by benchmarks for every course and at every stage. Such standards are not cast in iron and usually are subject to review as may be required by changing circumstances. Educational planning also offers the benefits of providing quality by setting standards, identifying areas for improvement, allowing teachers to make changes in teaching methods according to student needs, making teachers more effective through better preparation, enabling students to attain their potential and making schools more efficient through a better resource use (Schoolcues,2022).

The introductory level property valuation examination is the first taken by estate management students in Nigerian tertiary institutions. The core nature of valuation in estate management advises that the test should be comprehensive and balanced in the sense of covering all aspects of the curriculum. The present examination configuration has existed for many years and it is normal that systems be re-examined from time to time. This paper argues that a reconfiguration is now not only necessary, but also, important. This will take the form of creating distinct examination sections on which candidates will be required to demonstrate aptitude. This application of compartmentalisation will test candidates' abilities over every aspect of the curriculum with the prospect of achieving a greater level of knowledge. This paper draws essentially from the author's

experience of teaching in a Nigerian federal university where practice was borrowed from older federal valuation-teaching institutions.

This topic is important for the following reasons. Firstly, the core status of property valuation in estate management courses should necessitate constant evaluations of the methods of instruction and examination of learners, particularly at entry level where the foundations for effective learning and understanding are laid. Since changes can occur in the workplace, which is the destination of graduates, then change should also be possible and contemplated in the preparation of students for graduation. This should not be exclusively the duty of the tertiary institutions, but also, the professional body whose duty is to accredit the estate management course and whose membership the graduates will seek ultimately. Secondly, scant research attention has been given to valuation-teaching and valuation examination in Nigeria as evidenced by an unsuccessful online investigation using several search engines known to the academia. This may suggest that current practice is satisfactory and requires no improvement. It is, however, not irrational to posit that examination practice, as human systems, will require re-evaluations, and perhaps improvements, from time to time. Thirdly, a new academic benchmark (CC-MAS) was introduced in 2022 by the National Universities Commission, with some changes to the introductory level property valuation curriculum. This development is evidence that systems will need improvement because of changes which must occur with the passage of time. It means also that change, being a constant, can extend to the examination system. In addition, it is universal and does not exclude anybody or anything as “*change is not merely necessary to life - it is life*” (Alvin Toffler 1928-2016). Fourthly, findings from recent research (Onwuanyi & Adekanmi, 2022a); (Onwuanyi & Adekanmi, 2022b), reveal evidence of deficiencies in early-stage valuation-learning and understanding amongst recent estate management graduates in two key aspects of the curriculum: introductory valuation mathematics and capital market knowledge, particularly the analysis of basic equity investment ratios.

After this introduction, the paper considers the content and objectives of the introductory level valuation module. In addition, there is a review of examination practice in the subject, including relevant findings from recent research on introductory stage valuation-learning and the introductory stage capital market knowledge of recent graduates of estate management and valuation courses in Nigeria. The identified shortcomings in learning and examination and the prescribed requirements and learning outcomes of the new curriculum form the basis for the proposal for a reconfiguration for which the modalities and benefits are outlined.

INTRODUCTORY PROPERTY VALUATION: TEACHING OBJECTIVES AND CURRENT EXAMINATION PRACTICE

The objective of current examination practice in valuation aligns with the philosophy of the estate management course as enunciated in the handbooks of each and every teaching department. The common philosophical refrain is to give the students a sound and relevant grounding in the

principles which will empower them to solve real estate problems in the universal workplace comprising diverse functional areas, both in self-employment and paid employment. To achieve this outcome, the examination practice is geared towards the same end. Therefore, examinations aim at testing students in a manner which adequately prepares them for professional life. Generally, performance evaluation involves formal examinations, the quiz, field work, continuous assessment exercises and projects. These all are requirements set out in the BMASS (2014).

The Introductory Property Valuation course is not taken only in estate management. It is also a requirement for quantity surveying and urban and regional planning. For estate management, it is a compulsory course but for quantity surveying and urban and regional planning, it is not. This occurs at 200 level. The status of the module in estate management is because it provides the foundation for training as a valuer. Thus, valuation is a compulsory subject from 200 to 500 level in estate management. The valuer's main function is to assess the value of property. To do this effectively, he must not only operate within the environment of the property market, but also, be conversant with the capital market which is not only an alternative investment sector, but also, the source of funds used for the buying and development of property. This suggests that he must be familiar with the entire investment market.

In the case of the quantity surveying profession, their need to understand the property market can be explained clearly by a comparison of its functions with those of the estate surveyor and valuer. First, the two professions operate within the property industry, respectively in the production and management of property as a durable good. Secondly, both professions offer investment advisory services. Whilst the former advises on property values, the latter advises on property production costs; land economics is practised by the former whilst the latter practises building economics; the former manages building investments whilst the latter facilitates the management of cost-effective building production. These all involve investment activity, and therefore, require an understanding of the investment market which comprises the capital market sector where equity is traded and loans raised; and the property market sector where property rights are exchanged with the objectives of seeking, obtaining and delivering investment value. Third, these learners need to understand that property and equity are alternative investments between which there is a competition for investment capital. Fourth, investment sector knowledge can be useful to quantity and estate surveyors in giving advice respectively on cost-effective production of buildings and profitable and sustainable management of such investments. This is particularly so because property development funds are raised in the same market where different investments and businesses compete for access to capital. Fifth, the fact that property features in all productive activities establishes a co-dependence between the property industry and the macro economy. Since these two surveying disciplines operate within the macro economy, an understanding of capital investment and the financial system would be valuable in their investment advisory roles.

Apart from urban planning being one of the environmental sciences like estate management and quantity surveying, its practitioners who traditionally operate in the public sector and on behalf of

society, take decisions which may affect property investment activity. It is apt that those who take such decisions understand the potential consequences for property investment such as the decision to invest in property, where to invest, project outlay, profitability, and ultimately, the capacity to sustain property investment activity. If property investment becomes less desired due to unfavourable planning decisions, surplus funds may be directed to the capital market and equity investment as an alternative. Planning can intentionally as well as unintentionally encourage or discourage investment in certain locations, sectors or segments of the property industry. Under ideal conditions, urban land needs and uses are initially established by the professional planner, but his subsequent decisions can affect the price of urban land. This, in turn, may impact land investment activity and precipitate a re-distribution of urban land uses. Therefore, the planner must understand the potential consequences of the decisions which he is required to make in the overall interest of society.

Just like the practice elsewhere tertiary education in Nigeria is subject to the guidelines of accreditation bodies. In the case of universities, the appropriate authority is the National Universities Commission (NUC) whilst for polytechnics, it is the National Board for Technical Education (NBTE). The university system is the focus of this paper. Currently, university programmes, except for the 2023-2024 and 2024-2025 intake, are being run under the guidelines of the NUC's 2014 Benchmark Minimum Academic Standards (B-MAS). The BMAS was produced as "*a guide to the universities in the design of curricula...in terms of minimum acceptable standards of input, process as well as measurable benchmark of knowledge, skills ad competencies expected to be acquired by an average graduate*" (NUC, 2014: p.2). As mentioned, a transition to the 2022 Core Curriculum Minimum Academic Standards (CC-MAS) benchmark started with the 2023-2024 intake. An important aspect of the CC-MAS is that it provides 70% of the curriculum whilst leaving the remaining 30% to the discretion of the university institutions. This paper considers the provisions of the CC-MAS as it affects introductory level property valuation.

Regarding the first semester at 200 level, the CC-MASS stipulates for introductory level property valuation whose course code is ESM 221, the following content.

"Introduction to investment mathematics. Simple interest calculations, compound interest calculations. Basic valuation mathematics, Amount of one-naira calculations, Present value of one-naira calculations, interrelationship between the Amount of one naira and the Present value formula, different ways of expressing the main components in the formula such as interest (i), number of years(n) and the capital invested. Nature/theories and definitions of value, definitions and purposes of valuation. The functions of a valuer. Income, price, cost and their relation to value. The economic, constitutional, geographical, sociological, environmental, political and legal bases of property value. Principal types of landed property in Nigeria". (NUC, 2022: p.168; ESM 221: Introduction to Valuation I).

The expectations of CC-MAS as to learning outcomes in ESM 221 are that students will:

- (i) obtain a sound knowledge of the foundational principles of investment mathematics which is fundamental to an understanding of valuation;
- (ii) gain an understanding of the mathematical processes used in property investment analysis and decision-making;
- (iii) improve the understanding of valuation mathematics.

Therefore, the main areas of concentration of the content can be discerned as valuation mathematics; and the associated market concepts of price and value.

In the case of the second semester, the content for introductory property valuation whose course code is ESM 222, is as follows.

“The land market: its nature, features, sectors and imperfections. The money and capital markets, and the principles governing interest rates and yields. Method of market analysis. Mathematics of finance: the mathematical background and construction of valuation tables and concepts of years purchase. Property inspection and survey (property referencing). Concepts of rack rents and profit rent. Elementary valuation problems without and with the aid of valuation tables – for income receivable in arrears and in advance, different income periods/patterns: discounting and capitalization distinguished; the concept of risk and return” (NUC, 2022: p.169; ESM 222: Introduction to Valuation II).

The principal areas can be easily seen as valuation mathematics; the mathematics of valuation table construction; the mathematics of incomes receivable in advance, discounting and capitalisation; the land and property market and their imperfections, including property market transactions analysis; and the money and capital markets.

According to Olaleye and Oyewole (2016) quality assurance is multi-dimensional and embraces all “functions and activities in teaching and academic programmes”. Examination, as the culmination of them all, takes a special place. Furthermore, quality assurance is a continuous process of improvement in learning and teaching activities by means of internal and external mechanisms (Okebukola, 2004). This buttresses the need for periodical assessments of the efficacy of the system. As regards current practice, the Introduction to Valuation 1 and 2 examinations all follow similar lines. There is a provision for formal written examinations and continuous assessment which respectively contribute 70% and 30% of the total score. The written examinations, which do not exceed three hours, comprise six set questions with candidates being required to answer any four. There are usually no compulsory questions. Short answers and multiple-choice questions are a part of continuous assessment, not the main written examination per se. In the absence of demarcated knowledge areas and compulsory sections, the examination as currently conducted may not adequately test the candidates on the entire curriculum. For instance, the experience of the author, as subsequently confirmed by research (Onwuanyi& Adekanmi, 2022b), is that the money and capital markets are topics receive inadequate attention in introductory valuation in many Nigerian universities. This was confirmed by a survey in which

recently graduated respondents demonstrated an inadequate knowledge of the Nigerian capital market. In a second survey (Onwuanyi & Adekanmi, 2022a) recently graduated respondents admitted experiencing difficulties in gaining an early grasp of introductory level property valuation, accepting also that early-stage understanding can either be aided or hindered by the instructional methods in use, particularly the tutorial. It is, therefore, argued that the aforementioned circumstances are reasonable grounds for re-thinking examination practice for property valuation at the introductory level.

There is no denying that the benchmark implicitly requires not only the dissemination of knowledge as fully as possible on all aspects of the syllabus, but also, the examination of learners on the same. It is the teacher's responsibility as a specialist in his area to ensure that learners are thereafter examined on all aspects of the curriculum with an equal emphasis. It is pertinent to mention here that research by Onwuanyi and Adekanmi (2022a) reveals that valuation-teaching in Nigerian universities is done mainly by lectures and with no official timetabling for tutorials. This does not comply with the NUC's prescribed ratio for hours of lectures to hours of tutorials. The respondents' majority view that this affected their early grasp of introductory valuation suggests that principal learning outcomes may become subjected to a challenge.

Furthermore, teaching cannot really be separated from the conduct of examinations because, as stated by Olaleye and Oyewole (2016), quality assurance is multi-dimensional and all-embracing. As mentioned, examination is the conclusion of the process. In some institutions, the module is split between two or three lecturers. There are usually no clear criteria for the split. This may be according to the preferences of the lecturers or by specialisation areas. In such arrangements, there may be overlaps which are not properly covered in teaching and examination. Splitting of the module is acceptable practice, but one which should be based on clear criteria. Where the module is split, each teacher makes a contribution to the examination questions.

This review of teaching objectives and current examination practice in the introductory level property valuation examination reveals as follows:

First, it is a subject which is taken in more than one discipline of the environmental sciences. Second, its teaching is guided by the curriculum approved by the accreditation body, the National Universities Commission. Third, there is currently a transition from the B-MASS curriculum of 2014 to the 2022 CC-MAS which has introduced some changes. Fourth, the examination of property valuation at introductory level usually requires candidates to attempt any four questions out of six. Usually, there are no compulsory questions or compulsory sections designed to test the broadness of knowledge held by candidate on the three distinct aspects of the curriculum. Fifth, the existent benchmark and the new one are syllabi for teaching, but not the examination of the subject, although it rationally requires the dissemination of knowledge on all aspects of the syllabus and the examination of learners on the same. This places the teacher in a position to ensure that the examination is broad-based.

THE NECESSITY FOR A RECONFIGURATION

In common usage, “examination” refers to the assessment of aptitude amongst learners. However, under the present system there are two methods of performance assessment. One is “*continuous assessment*” (comprising quizzes, tests and assignments) whilst the other is described as “*examination*” (the written assessment which is held under strict conditions). It is with the latter that this paper is concerned. Performance assessment at the end of each semester is categorised under the headings: *continuous assessment and examination* before the scores being graded.

Quizzes, tests and assignments definitely offer students the opportunity to demonstrate their capabilities. These assessment methods, which make only a maximum 30% contribution to the total marks, duly serve their purposes. However, they have limitations in terms of the conditions under which they are held. For instance, there is a tendency for learners to treat assignments with levity, leading to the copying of their colleagues work or copying from the internet. In the case of project work, there are usually no plagiarism tests. In point of fact, continuous assessment plays only a supportive role in students’ assessment. If that were not the case, it would make up 70% of the marks, leaving 30% for the written examination. This logically suggests that improving the written examination would contribute to a better assessment method.

As mentioned, the focus of this paper is the formal written examination to which is allocated 70% of the marks in introductory valuation. Since the bulk of the marks come from the written examination, the attention being given to it in this work is justified. The marks from the quizzes, assignment and tests alone cannot give the candidate a pass in the subject. No matter the level of prowess demonstrated by the student, the maximum 30% contribution is a limitation. Neither can the candidate score a good result overall without having decent marks from the written examination to add to the continuous assessment marks. It should also be borne in mind that the student who has no continuous assessment score can pass the course through an above-average performance in the written examination. This is the crux of the matter. With a reconfiguration of the formal examination, to cover each and every area of the syllabus, with compulsory sections and questions, the learner will have the opportunity to demonstrate also the competence displayed in continuous assessment.

The curriculum and examination are elements of the system. Their relevance lie in their ability to reinforce each other. Therefore, as change occurs in the one, it is not inapposite that it should occur in the other, else as part of a larger system, there may be a detrimental lack of balance. Therefore, it is possible and justifiable to consider the possibility of making changes in how the examination is conducted under the new curriculum. Such change may lie in making the examination more comprehensive with the benefits in broadening the knowledge of learners and improving their abilities. This will deliver better graduates with the opportunity of producing more accomplished professional valuers and investment advisers, particularly by the possession of a good

understanding of the capital market. Accordingly, this paper sets out to make a case for, and explore the modalities of, bringing a change to the conduct of examinations in introductory level valuation.

The current position assessment of examination practice suggests that certain issues can be better handled. First, the examination is not broken into sections which reflect the critical areas of knowledge which are broadly: valuation mathematics, the property market and the capital market. This requires attention in order to demand a wider level of knowledge and demonstrable capacity from candidates. Secondly, current practice usually requires candidates to answer any four questions out of the six presented. Since there is usually no compulsory question, the paper provides a generous choice given the wide module content. This does not permit an intensive testing of the candidates. The module is compulsory and the test should reflect this fact. Therefore, the module content ought to be classified into compartments which will form the foundation for a compulsory test. This will amount to a test of knowledge on a compulsory course by a test based on compulsory sections of the course content. This is the essence of the argument for a reconfiguration.

These are important observations because introductory valuation provides the foundation for valuation education and the training of the valuer. Valuation is a practical skill which, like many others such as engineering and technology, is founded on theory. As observed by Tyagi (2024), theory and practice must co-exist and support each other. Undue reliance on practical skills will not only tend to produce shallow outcomes, but an inability to adapt and innovate in the face of real-world challenges which require a return to theoretical reasoning. Valuation education is real estate education. Real estate education necessarily involves capital market knowledge. So, the real estate practitioner should possess adequate knowledge in this regard.

Further to justify the necessity of the proposal in this paper, some detail is provided below on the two cited studies involving recent graduates of estate management (Onwuanyi & Adekanmi (2022 a & b). They both suggest that challenges with valuation-teaching in Nigeria. Since, as mentioned, the curriculum and the examination constitute a system, then the effectiveness of current practice in the latter is also challenged. The first, (Onwuanyi & Adekanmi, 2022a), investigated the early-stage learning and understanding of introductory property valuation by surveying recent graduates of estate management from Nigeria's tertiary institutions. The findings were that:

“a sizeable number of respondents did not fully grasp some fundamental issues such as the six main valuation formulae, the two features common to them all and their reciprocal relationships; interpretation of the income-capital value relationship created by the Year's Purchase multiplier; and the direct-indirect relationships between the main valuation formulae. The practical implication is that the inability to grasp IVM at the appropriate time tends to lower overall performance in valuation with the risk of producing valuation-shy graduates. The many gaps in the demonstrated knowledge of respondents leads the study to conclude that the knowledge held is mostly inadequate” (Onwuanyi& Adekanmi, 2022a: p.31).

This lends support to the proposal to create a special section examination section for valuation mathematics.

The second study (Onwuanyi & Adekanmi, 2022b), investigated the capital market content of Nigerian real estate education amongst recent graduates of estate management from Nigerian universities and polytechnics According to the authors:

“The results point to a scanty curriculum. In addition, there is a low awareness of the administrative and economic functions of the NSE. Furthermore, respondents have a poor understanding of core issues in equity investment analysis. Again, there is an inadequate grasp of the relationship between the two investment alternatives, although a majority rightly credit property as a better option. Lastly, respondents mainly do not consider an understanding of the market as relevant to their professional function in a modern economy” (Onwuanyi & Adekanmi, 2022b: p.71).

The study concluded that “the demonstrated knowledge of respondents suggests that the curriculum does not have adequate content on the capital market” and recommended that:

“the capital market content of the estate management course be enriched with more depth and detail which adequately reflect the increasing significance of the market to the valuer’s practice and his true role as an investment adviser in an increasingly financially interconnected world ” (Onwuanyi& Adekanmi, 2022b: p.71).

Again, this lends support to the creation of a section for capital market issues in the examination.

THE MODALITIES FOR A RECONFIGURATION

A suitable and effective reconfiguration will occur if certain conditions are adequately met. These relate to the incorporating the issues identified as shortcomings in Section 3.0 where the case for reconfiguration was presented. The conditions in question are explained in the three steps presented below.

Step One

By restructuring the Introduction to Valuation modules 1&2 (ESM 221 & ESM 222) into sections covering:

- i. Valuation mathematics theory.
- ii. The land and property markets, and
- iii. The capital and money markets.

This follows from previously stated summarisations.

The three sections are shown in Table 1. These are sections A, B and C. The NUC CC-MAS content, in a summarised form, appears first and it is indicated in italics. Placed below it is supplementary relevant content which is suggested for inclusion in developing instructional material.

Table 1: Examination Question Configuration

	<i>Section A</i>	<i>Section B</i>	<i>Section C</i>
	Valuation Mathematics	The Property Investment Market	The Capital Investment Market
Content	<p><i>Financial mathematics (simple and compound interest); mathematics table discounting capitalisation, receivable in advance); solving valuation problems without and with the aid of valuation tables where income is receivable in arrears and in advance; interest rates & yields; valuation, its purposes & the valuer's functions, methods and skills.</i></p> <p>*Suggested complementary content for modules 1&2: Distinguishing between the main valuation formulae & their variants; valuation formulae classifications, features, functions; the direct and indirect relationships of the main valuation formulae.</p>	<p><i>The land market: its nature, features, sectors and imperfections; economic, constitutional, geographical, sociological, environmental, political and legal bases of property value; principal types of landed property in Nigeria.</i></p> <p>*Suggested complementary content for modules 1&2: Land markets and the economy; The role of property in the modern economy; the nature, characteristics and functions of the property market; the international property market & contemporary classifications of property markets across the world; Emphasis on the functions of the land market & the characteristic of the property market.</p>	<p><i>The money and capital markets</i></p> <p>*Suggested complementary content for modules 1&2: Debt capital as an investment; comparative qualities & relationship of equity and property investments; comparison of gearing in property and equity investment; The YP equivalent in equity investment analysis; calculation of simple ratios in equity investment such as gearing; return on capital employed, return on equity capital, earnings yield, dividend yield; dividend cover; price-earnings ratio; relationship of the valuer with the capital market; role of capital in the investment market.</p>

Since, the table shows that the entire NUC CC-MAS content can be neatly classified into these three groups, a basis is provided for presenting a proposal for restructuring the examination paper to ensure that candidates are compulsorily tested on these broad areas.

Step Two

This requires that the examination questions be set to cover the taught material under each section to give candidates the opportunity of demonstrating their aptitude in each area. The same three-section format should be adopted.

Step Three

The proposal adopts the current practice of a six-question paper where candidates are required to attempt a maximum of four questions. The difference here is that they will be required to attempt one question from Section A, one from Section B, one from Section C and the fourth from either A, B or C. Table 2 explains the suggestion.

Table 2: Instructions for Answering Questions in a Reconfigured Examination

	<i>Section A</i>	<i>Section B</i>	<i>Section C</i>
Status	Compulsory	Compulsory	Compulsory
Requirement	1 answer	1 answer	1 answer
4th Answer	From any one of A, B or C		

Mode of Examination

As mentioned in the introduction, written examinations take various forms. A reconfiguration should look into exploring these other forms of written examinations. Current practice applies the quiz, objective tests, assignments and formal sessional tests. Other forms are also relevant in so far as they enable the candidate to demonstrate capacity. However, these other forms of the written test should be organised in accordance with the categorisations indicated in table 2.

By this pattern of asking questions and giving answers, the candidate's level of knowledge will be compulsorily tested on each of the broad sections. In this, there are potential advantages not only to the teacher, but also, to the learner as well as the system, more broadly. Table 3 displays these potential benefits.

Benefits of a Reconfiguration

These come in two broad senses. The first is in regard to the teacher and the learner, the main actors in formal education. Table 3 displays these benefits.

Table 3: Benefits of Reconfiguration to Teacher and Learner

S/N	Teacher
(i)	A broader coverage of the syllabus
(ii)	More emphasis on valuation mathematics which is a challenge to many students. The
(iii)	development of broader course content on the property market.
(iv)	The development of more comprehensive course content on the capital market.

	Learner
(i)	A better understanding of valuation mathematics
(ii)	A better knowledge of the property market
(iii)	A better knowledge of the capital market and its relationship with the property market, including the role of the valuer in the former.
(iv)	A better knowledge of which, between property and equity, is the better investment, and why.

It is self-evident that the itemised issues constitute gains to the system. These provide the opportunity of producing more knowledgeable graduates.

The second way in which a reconfiguration constitutes an advantage is in respect of producing graduates who possess a strong theoretical knowledge. Theory is the foundation upon which practical knowledge can be built and sustained. The practical abilities of the graduate will depend on his theoretical grounding. Without this, the practical skills taught in advanced valuation can become superficial. This may result in an inability of graduates to adapt or innovate (Tyagi, 2024). Therefore, there should be no preference for practical skills at the expense of theoretical grounding as this amounts to a shallow approach to learning. Inadequate knowledge of introductory level property valuation cannot sit well with the teaching of advanced skills in valuation given that workplace or practice challenges may require falling back to theoretical precepts for guidance. Both must co-exist and support each other (Tyagi, 2024). This is implied by the requirement of the NUC (2014) that Nigeria's university graduates, as a whole, should possess the knowledge, skills and the ability to fit into the requirements of the new national and global economies.

CONCLUSION

This paper reviewed the introductory level property valuation examination from the teaching experience in a Nigerian federal university where practice was borrowed from older federal valuation-teaching institutions. This review was prompted by the 2022 introduction of a revised curriculum by the accreditation body, the NUC. The feasibility, modalities and benefits of instituting corresponding changes in examination practice were considered in the light of the

absence of compulsory sections and questions and findings from research involving recent estate management graduates. The conclusion is that a reconfiguration is necessary and important because the deficiencies may not offer the candidate an adequate foundation, with the risk of constituting a disadvantage in meeting future challenges in learning and in practice.

The review of current examination practice reveals that there is no emphasis on a spread of questions which is reflective of every important aspect of the curriculum. In addition, despite being a compulsory module, there are usually no compulsory questions and compulsory sections in the examination, thus offering an overly generous choice to candidates. The state of current examination practice suggests the existence of deficiencies to which a solution should be sought. The introduction of the CC-MAS offers an opportunity to plug these gaps.

The following recommendations arise from this review. First, a reconfiguration as proposed is desirable and justifiable, with the advantages of overcoming extant shortcomings and upgrading the examination to a better and more comprehensive test of all knowledge areas. This would be particularly so with the introduction of the suggested supplementary and complementary instructional input. Second, given the dearth of studies on valuation-teaching in Nigeria, this paper hereby makes a call for regular effectiveness assessments of teaching, both by researchers and the authorities. This is undeniably a component element of quality assurance which, according to Okebukola (2004), requires internal and external mechanisms for improvement.

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