



An Assessment of Learning Styles in Estate MGT Courses in Northwestern Nigeria.

David Ayock Ishaya¹ and Ismail Umar²

¹Department of Estate Management, School of Environmental Studies, Hussaini Adamu Federal Polytechnic, Kazaure, Jigawa State, Nigeria

²Department of Quantity Surveying, School of Environmental Studies, Hussaini Adamu Federal Polytechnic, Kazaure, Jigawa State.

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ABSTRACT

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I. INTRODUCTION

Individual differences in learning styles can be seen in the strengths, weaknesses, interests, and talents related to academics. It is safe to assume that students with any conceivable learning style have the ability to flourish as engineers, given the nearly infinite range of job descriptions within the engineering field. However, as they react differently to various teaching modalities and the main mode of instruction prioritises certain learning styles over others, they might not have an equal chance of success in engineering school. Felder (1998). Thus, recognising the variations in learning styles is crucial to creating an education that is balanced and beneficial for every learner. Learning styles categorise the various ways that individuals approach and learn knowledge. One can employ more effective learning strategies by identifying and comprehending their unique learning preferences. Sajna & Anne (2019).

Learning can be accelerated and made of higher quality as a result. Understanding one's learning style is crucial since it makes learning more efficient and creative, boosts achievement, sharpens problem-solving abilities, and allows one to make better judgements. Not a single pupil employs a single style exclusively. The majority of pupils use multiple learning modalities. It is critical that they develop their skills. should make use of as many different learning styles as they can in order to be successful in all learning environments. the importance of learning styles in instructional design, which dates back to some of the concept's most ancient and well-known formulations: (1) Every learning style category (verbal and visual, sensing and intuitive, etc.) has specific characteristic skills associated with it; (2) the skills associated with both categories of each

learning style dimension are important for success in most professions; (3) the best way to teach a course is to balance the preferences of students with different learning styles rather than strongly favouring some preferences over their opposites; (4) the best way to teach a course depends on the subject, the course level, the students' prior knowledge, and the instructor's experience with alternative teaching strategies. When a proper balance is struck, instruction is given to each student, sometimes in their preferred way to make learning less uncomfortable.... occasionally in their least preferred way, forcing them to develop and grow and acquiring critical talents that they might never acquire if their preferences were fully satisfied. David Kolb's experiential learning model, which he popularised in the 1970s, is one of the most extensively utilised learning styles (1984, 2014). Kolb's main concept is to educate around the cycle, addressing the preferences of students with varying styles one after the other rather than teaching each student in accordance with their preferred method. Although there have been doubts about the validity of Kolb's Learning Styles Inventory, it is still not essential to identify which pupils are accommodators, divergers, assimilators, and convergers. All kids will learn if the teacher follows the cycle. irrespective of the way they learn best. The FS model (Felder and Silverman 1988; Felder 2010; Felder and Brent 2016, 276-278) and the MBTI model (Lawrence 1979, 1984, 1993, 2009) have both been discussed in relation to this idea.

The generation of professionals who satisfy the standards that society needs is greatly aided by real estate education. There have been numerous debates regarding the challenges involved in creating a shared body of knowledge in real estate education. According to Rabianski and Black (1999), there is still more that could be done to increase the current curriculum's efficacy because professionals have expressed concerns about the program's applicability and efficiency to the field of estate management in



the United States. Students' comprehension and understanding are reinforced when they share their ideas and react to colleagues' replies since knowledge is acquired through both textual material and experience. Numerous learning styles have been recognised by psychologists. There are allegedly more than seventy different learning style models, and each model consists of two or more distinct learning styles. Not every one of these models can be applied to explain how a foreign language is learned; language acquisition has its unique features. Put differently, not every model of learning style can adequately account for the experience of picking up a new language or idea. The majority of published research discovered a mismatch between the teaching style of the teacher and the student's learning type. Without a doubt, there are a number of differences between professors and students. Both teachers and students can benefit greatly from understanding one other's preferred methods of learning. It is necessary to recognise and comprehend both the teaching styles of teachers and students in order to include students in the active learning process. It is possible for the two to match or not match. Examining their relationship is essential.

Numerous research have been done on how well or poorly teaching and learning styles complement one another (e.g., Naimie et al., 2010; Massa and Mayer, 2006; Tuan, 2011). The majority of them state that when the two are matched, students' performance is improved, and they state the opposite when they are mismatched. Yet, mismatches are occasionally advantageous, particularly when dealing with low-level pupils. (Peacock 2001). One of the key psychological processes that affects how people behave is learning. All of the intricate behaviour that humans exhibit is learnt. Understanding how people learn is essential if we are to forecast and explain behaviour. Psychologists claim that compared to animals, humans have a remarkably high percentage of untapped brain capacity from birth. Naturally, it will not be good in the beginning since he will feel powerless. However, as he ages and experiences new situations, this untapped mental ability will aid him in adjusting to them. Through learning, this untapped cerebral power will be put to use. In actuality, learning influences almost every human behaviour, either directly or indirectly. Numerous theories exist about learning, such as classical conditioning, social learning, cognitive learning, and operant conditioning. Every learner has a different preferred method of learning. Different methods are used by them to learn the material: some learn by doing practical work, some by listening to it, and some by

watching it. People so have different learning styles. A person's learning style is defined as a combination of characteristics, attitudes, and behaviours that help them learn in a particular setting. This teaching approach also affects how the teacher teaches, how the students learn, and how the two of them interact. Numerous studies have demonstrated that the various patterns of perception among people are caused by distinct cell types that are found in different parts of the brain. Visual aids like graphs, charts, and images help learners who learn best visually. Hear-based learning occurs in auditory learners. Kinesthetic learners pick things up through doing. One, two, or three learning styles can be preferred by students. Owing to the diversity of learning styles, educators must ensure that their study plans take these learning styles into account in order for every student to achieve academic success. The aim of this research is to identify the variables that influence estate management education among students.

Learning Style Definition

Many terms have been used in literature, such as personality types, learning styles, cognitive styles, and sensory preferences. Some terms have been used synonymously on occasion, although they have also been employed in various contexts (Cassidy, 2004). Learning styles are defined as “the complex manner in which, and conditions under which, learners most effectively perceive, process, store, and recall what they are attempting to learn” (James and Gardner, 1995: 20), whereas cognitive styles are defined as “an individual's natural, habitual, and preferred way(s) of absorbing, processing, and retaining new information and skills” (Reid, 1995: viii). Mortimore (2003) makes a distinction between learning and cognitive styles. Numerous terms, including personality types, learning styles, cognitive styles, and sensory preferences, have been used in literature. Certain phrases have occasionally been used interchangeably, but they have also been used in different situations (Cassidy, 2004). Cognitive styles are defined as “an individual's natural, habitual, and preferred way(s) of absorbing, processing, and retaining new information and skills” (Reid, 1995: viii), whereas learning styles are defined as “the complex manner in which, and conditions under which, learners most effectively perceive, process, store, and recall what they are attempting to learn” (James and Gardner, 1995: 20). Mortimore (2003) distinguishes between cognitive and learning styles.



CATEGORIZATION OF LEARNING STYLES

In general, there are three primary categories of learning styles: cognitive, personality (psychology), and sensory. Kolb's learning style model, Ehrman and Leavers' concept, analytical/global, fielddependent/field independent, impulsive/reflective, and so on are all included in the category of cognitive learning styles. Extroverted/introverted, random-intuitive/concrete sequential, and closure-oriented/open-oriented are examples of personality learning styles. Three subtypes of sensory-yearning styles exist: visual, tactile, kinesthetic, and auditory (Dornyei, 2005; Oxford, 2001).

Visual Versus Verbal

Visual aids like diagrams and films are preferred by visual learners who prefer to think in visuals. Verbal learners, on the other hand, take in more information by use of written or spoken explanations (Ldpride, n.d.; Felder, 1993).

AUDITORY LEARNERS

Visual aids like diagrams and films are preferred by visual learners who prefer to think in visuals. Verbal learners, on the other hand, take in more information by use of written or spoken explanations (Ldpride, n.d.; Felder, 1993).

SPEECH.

These learners understand meaning by concentrating on the pitch, tone, and speed of their voice. They benefit from reading text out loud, and they may not make use of written information (Ldpride, n.d.).

KINESTHETIC OR TACTILE LEARNERS:

Visual learners who think best in pictures tend to favour visual aids such as films and diagrams. Conversely, verbal learners process more information through the use of spoken or written justifications (Ldpride, n.d.; Felder, 1993). Intuitive (Visual aids like movies and graphics are often preferred by visual learners who process information best visually. Verbal learners, on the other hand, process more data. by means of written or vocal defences (Ldpride, n.d.; Felder, 1993). random) versus sensing (sequential)

GLOBAL VERSUS ANALYTIC

Visual aids like movies and graphics are often preferred by visual learners who process information best visually. Verbal learners, on the other hand, process more data.

by means of written or vocal defences (Ldpride, n.d.; Felder, 1993). Active versus reflective
Reflective learners comprehend and retain material best by thinking about it beforehand, but active learners prefer implementing and discussing assignments with others while working on them directly. Reflective learners like working alone or in pairs, but active learners like working in groups. (Felder, 1993).

INDIVIDUAL VERSUS GROUP PREFERENCES

While reflective learners learn best when they think about the content in advance, active learners prefer to work on assignments immediately and discuss them with others. Working in groups is preferred by active learners, while reflective learners prefer working alone or in pairs. Felider (1993).

THE SIGNIFICANCE OF DETERMINING AND COMPREHENDING LEARNING STYLES

The lives of learners are significantly impacted by their learning styles. Students will be able to incorporate their preferred learning method into their coursework once they are aware of it. Learning will be simpler, quicker, and more effective as a result. Determining the learning styles of students also helps them solve difficulties more skillfully.

Students will have greater control over their own life the more adept they are at handling challenges (Biggs, 2001). Additionally, knowing one's learning style aids in the acquisition of learning strategies. As a result, students gain greater independence and responsibility for their own education. As a result, students will feel more confident, and teachers will have less control over their education.

During this stage, teachers act as guides while students take the lead and manage their own education (Gilakjani and Ahmadi, 2011). It is also simpler for teachers to modify their lesson plans to meet the needs of their pupils when they are aware of the various learning styles.

Since beginner or struggling students are more likely to become frustrated during this stage of their education, matching is very important while working with them. Mismatching can be helpful in a variety of contexts to allow students to experiment with new teaching techniques, accept different viewpoints, and think about their own learning preferences. However, mismatching should be done cautiously because it can lead to learners giving up (Tuan, 2011).



Moreover, Ldpride (n.d.) suggests that identifying one's learning style has three advantages: academic, professional, and personal. Academic benefits include: Teachers serve as mentors at this point, but students take the initiative and oversee their own education (Gilakjani and Ahmadi, 2011). Knowing the different types of learning styles also makes it easier for teachers to adapt their lesson plans to fit the needs of their students.

Matching is crucial when working with beginners or difficult pupils because they are more inclined to lose patience at this point in their education. In a number of situations, mismatching can be beneficial in letting students try out novel teaching strategies, be open to opposing ideas, and consider their own learning styles. Mismatching should be used carefully though, as it can drive students to give up (Tuan, 2011). Furthermore, according to Ldpride (n.d.), determining one's learning style has three benefits: intellectual, professional, and personal.

MATCHING THE TEACHING AND LEARNING MODALITIES

It's a given that students learn more effectively when the format of their education aligns with their preferred learning style. A visual learner, for instance, might absorb information more effectively when it is presented graphically. This strategy is known as the "learning hypothesis," or "meshing" or "matching hypothesis" in more recent iterations (Pasher et al., 2009:108). On the other hand, a mismatch could be detrimental to the students. Some discussions based on a survey of pertinent literature for learning hypotheses or matching hypotheses will be offered in the upcoming sections. In 1998, Spoon and Schell carried out research in a public technical institute in Georgia that was coeducational. Comparing the achievement levels of individuals who received instruction that met and mismatched their reported learning style was one of the goals. 189 pupils and 12 professors took part in the study. The characteristics of learning and teaching styles were measured with permission using the Principles of Adult Learning Scale. The PALS instrument was given to the pupils in order to gather the data. Meeting with teachers and asking them to fill out a demographic survey allowed for the collection of teacher data. An assessment of their learning styles was given to both teachers and students at the beginning of the study. Teachers and students were split into groups that were congruent and those that were not based on how well their inventories were completed. According to statistical analysis, there was no discernible difference between

the two groups. As a result, the study was unable to validate the learning hypothesis. Recently, 52 undergraduate students from California University's psychology department were evaluated in three experiments by Massa and Mayer (2006) in a well-organized study. The researchers created an electronics course that is computer-based. Two different types of aid screens were designed to give printed texts and graphics to learners who are verbal and those who are visual. Using a variety of assessment tools, verbalizers and visualizers were distinguished from one another based on their preferred methods of learning, cognitive styles, and spatial abilities. The purpose of the study was to determine if learners who are visualizers learn better from combined education that uses pictures for assistance screens, or learners who are verbalizers learn better from combined instruction that uses words for help screens. In summary, the findings showed that there was no evidence of higher accomplishment among individuals who received guidance screens that matched their preferred styles. Therefore, the outcome did not support using distinct teaching strategies for verbal and visual learners.

Cook et al. (2009) conducted an in-person study with 123 intern physicians and provided web-based ambulatory courses in a medical education context. They were designed to test the hypothesis that students who learn best by senses would do better when given instruction that presented a problem before using the content information to solve it. Conversely, those who learn intuitively would fare better in the opposite situation. The participants were required to finish two modules using the previously specified two instructional methods. A test was employed at the conclusion of each module to assess knowledge and the primary goal. The two test scores were compared throughout time and in the midst of the two forms. The two instruction formats did not significantly differ, according to the statistical analysis of the data. Consequently, the study's attempt to validate the hypothesis was unsuccessful. In a related study, 52 younger and older persons (equally distributed across genders) were studied to determine how presenting modes affected their oral learning. Constantinidou and Baker (2002) conducted this investigation. To determine if the learners' preferences for information intake indicated their capacity to understand and retain knowledge in different modalities, a laboratory experiment was employed. A Visualizer-Verbalizer Questionnaire (VVQ) was utilized to investigate the relationship between the adults' scores and verbal free-recall performance on a test that displayed words through either visual or auditory means, or



both. There were several questions on the VVQ that asked students to choose between oral and visual means of expressing their preferences. The findings showed that the performance of the free-recall levels for different input modalities did not significantly correlate with the VVQ scores.

Additionally, it was discovered that as compared to oral presentations, the visual presentation produced superior free recall. As a result, the researchers discovered no meaningful connection between the items' oral and visual presentations. The learning or meshing hypothesis received no support from these four research. These unfavourable findings do not, however, constitute a total debunking of the theory. In order to find out if students who get teaching in a style that matches their own perform better than those who do not, Sternberg et al. (1999) conducted a study. The study sample consisted of 324 talented and proficient high school pupils. Based on the students' results on the Sternberg Triarchic Abilities (STA), a selection process was created. Each student's creative, analytical, and practical ability scores were ascertained by the test. The researchers chose a sample of 112 students based on test results who scored better on one of the abilities shown in the tree than the other two. The students were split into three groups: high creative, high analytical, and high practical, based on their areas of expertise. The other subjects were not included in the study, and another set of 87 students was split into two more subgroups. After that, the participant students signed up for a University of Yale psychology course. and students were randomly selected to take part in class sessions that emphasised memory training or instruction in the creative, analytical, and practical domains. A variety of metrics were used to evaluate the course performance. Ultimately, the investigators scrutinised the information and contrasted the outcomes of the matched and mismatched participants. On two of the three categories of tests, matched subjects did better than their mismatched peers, according to the findings.

Reid's (1987) theory—which states that a mismatch between the teaching and learning styles results in learning failure, demotivation, and frustration—was tested by Peacock (2001). Reid's questionnaire, assessments, and interviews were employed to gather data from 206 EFL students and 46 EFL teachers at a Hong Kong institution. The findings showed that while the pupils favoured group and individual techniques, the teachers preferred auditory, kinesthetic, and group styles and detested individual and tactile styles. As a result, disparities between auditory and group styles were observed.

According to the interview results, 76% of the students said that the discrepancy between the teaching and learning styles had a detrimental effect on their ability to learn, and 70% of the learners were discouraged by it. and Reid's idea was accepted by 81% of the teachers. Peacock concluded by suggesting a balanced approach that would allow teachers to accommodate different learning styles. Naimie et al. (2010) looked at the impact of matching or mismatching teaching and learning styles on students' academic performance in a recent study. 310 students from the University of Azad's foreign language faculty in Iran were chosen at random. The data was gathered using the Learning Style Index (LSI) developed by Felder and Solomon (1997) in addition to observations, survey questions, and interviews. Four dimensions were incorporated in the LSI: global/sequence, visual/verbal, sensing/intuition, and active/reflective. All four of these factors were compared in terms of learning style preferences and achievement scores between matched and mismatched learning and teaching styles. The study's findings showed that the students' primary learning styles were active, sensory, visual, and global, in that order. The pupils were rated on a scale of 0 to 4, where 4 represented a perfect fit and 0 represented a total mismatch, in order to determine the impact of match and mismatch on learning and teaching styles. According to the results analysis, students' achievement was positively impacted when the teaching and learning styles were matched.

In a related study, Naimie et al. (2010) sought to determine: (1) how much EFL classroom teachers accommodate learners' preferred learning styles; and (2) how learners' success is impacted by learning and teaching style matches and mismatches. Two experienced professors and one hundred undergraduate English majors from an Iranian institution made up the study's sample. Observations and interviews served as the data gathering tools. The learning styles of the teachers and students were also determined using a survey questionnaire. The findings showed that active, sensory, and global learning were the three most common learning styles among teachers, whereas visual, global, and sequential learning were equally distributed in the final dimension. The authors came to the conclusion that when their professors catered to the requirements and preferences of their pupils, the students demonstrated a positive attitude and higher attainment. More recently, Tuan (2011) carried out a study to determine how teachers perceive the learning preferences of their students and the degree of stylistic mismatch between the two, which results in poor performance and dissatisfaction on the part of



the students. Twelve teachers and eight hundred students from eight different EFL classrooms in Vietnam made up the sample. Students in low, upper, and intermediate classes were given a questionnaire survey with forty-four closed-ended items. By watching classes, the degree of student-teacher style matching was assessed. The results showed that Vietnamese learners were more intuitive than sensing, more visual than verbal, more sequential than global, and more active than contemplative.

Additionally, there was some inconsistency in the ways that the professors and students learned. Following the matching of learning styles, the learners' styles were stretched through the application of diverse teaching strategies developed by Felder (1993) and Kolb (1984). Teachers had to become familiar with new teaching philosophies even though it was their responsibility to assist pupils in adhering to specific learning styles. The study supported the benefits of style, even though some students and teachers felt that style stretching was ineffective.

Learning strategies based on perception Perceptual learning style, sometimes called sensory learning style, is about how the learner uses their senses—such as their eyes and ears—to aid in the learning process. In order to process the external inputs, learners use their sense organs. This category includes the following five learning styles: tactile learning (learning by touching), reading/writing (learning by digesting text), auditory learning (learning by hearing), visual learning (learning by seeing), and kinesthetic learning/practical learning (learning by doing). Learning through reading, seeing words, or using teaching aids is preferred by visual learners. Rather than just listening to the teacher, they would rather read the words that are printed on the chalkboard. Consequently, 1. They would rather have the teacher write more in the classroom than speak more. Because the PPT presentation combines words with images or charts, it is appropriate for these learners. The translation-grammar teaching method will make this kind of learner feel at ease.

Verbal learners, another name for auditory learners, like to learn by hearing. For them, engaging in conversation with others may be enjoyable. They might not enjoy reading literature. They therefore prefer to listen more than look more while receiving instruction in a formal setting. A few instructional strategies, including the situational, audio-lingual, oral, and communicative approaches, might work for them. There are similarities between kinesthetic and tactile learners. While the latter like movement, the former prefer to learn by feeling or touching things

with their hands. When teachers employ the total physical reaction strategy, learners of these two types will feel at ease.

Styles of cognitive learning "Focuser" and "scanner," "serialist" and "holist"; "divergent" and "convergent" thinkers; "field dependence" (global learner) and "field independence" (analytic learner) are examples of cognitive learning styles. A few of them have meanings that overlap. The most significant duo is field independence and field dependence, which have been thoroughly examined in connection with second language acquisition. Analytic learners, another name for field-independent learners, are learners who prefer to dissect a complete thing into its component parts and concentrate on the specifics of a foreign language. If they are focused on the specifics, they might overlook the bigger picture. They are skilled analysts. They want to break down a statement or reading passage into its component elements in order to determine its exact meaning. 1. Learners who rely on their subject of study are global learners. Whether it's a sentence or a paragraph in the learning material, they would like to concentrate on the entire thing. They are adept at understanding the essential ideas and the overall framework.

Johnson (2003) discusses the tests conducted by Naiman et al. and notes that "the independent subjects seemed to be better learners" (p. 32). Only two of the personality and cognitive styles tested on these assessments have been found to positively correlate with language acquisition success. Field independence is the other, and tolerance for ambiguity is the first. Ellis (2005) brought up two theories. In formal language learning, "field-dependent learners do better, while field-independent learners do better," according to one hypothesis. Page 63. "Field-dependent learners will interact more and seek out more contact with other users of the L2," according to the other theory. Page 63 These two theories are highly debatable, though. Ellis highlights that the current body of research on field dependency and independence has not provided any insight into the connection between cognitive style and learning. (Page 66, Ellis, 2001)

Learning styles and personality To the best of my knowledge, there are two personality types of learners: impulsive learners and reflective learners. Accuracy is preferred over fluency by reflective learners. Before speaking, writing, or engaging in any other productive activity, they would prefer to give it more cautious and thoughtful thought. Additionally, they strive to avoid errors. They are cautious students. Conversely, impulsive learners enjoy taking chances and are, as their name implies,



bold in nature. They value fluency above precision. Compared to reflective learners, they most likely make more errors. D. Students with Complicated Learning Styles Those who possess multiple powerful learning methods are considered compound learners. A student may exhibit dual learning styles, being both impulsive and visual in their learning. There is not much research on this kind of learner. A couple potential combo models, in my opinion, still need to be evaluated.

EVALUATIONS OF THE LITERATURE FROM THE PAST ABOUT REAL ESTATE EDUCATION

While the field test question indicated a considerable variation in emphasis, Epley (1996) agreed with Week and Funch (2003) that at the graduate level, the course description, text, course assignments, and instructor qualifications varied at the school offering a terminal degree.

According to Black, Cam, Draz, and Rabianskj (1996), the majority of the time, estate surveyors are born with certain fundamental abilities and knowledge. These include the ability to negotiate, gather and process information, manage people and processes, communicate, solve problems, and have knowledge of market assessment and the business environment.

Wolverton and Butler (1997) looked at how real estate students' skill sets varied and how the programme was delivered. In their investigation, They explained in detail how they restructured their undergraduate real estate programme to improve the academic standing of the students.

According to Butler, Guntermann, and Wolverton (1998), industry linkage is a crucial component that makes graduate-level real estate education easier.

However, Ghyoot (2000) noted that while course structure, material selection, presentation technique, and evaluation criteria demand more attention in the literature, topics like course design, teaching style, and delivery mechanism have not gotten as much attention as they might have. The author continued by saying that studies had shown Arizona State University's business colleges in the USA that while graduates' knowledge was valued, their abilities were not. Writing has grown to be such a significant component of real estate that curriculum inclusion is required. Offer letters, real estate development ideas, and notices of demand for rent will all be essential components of the work. The alteration of an undergraduate course to include the philosophy of writing across the curriculum can therefore be used to guarantee that the writing requirements of the

course align with the course's overall learning objectives.

In a similar vein, Anderson, Loviscek, and Webb (2000) promoted the application of problem-based learning strategies to improve students' critical thinking and problem-solving abilities. They stress the value of incorporating problem-based learning activities that cover a variety of real-world situations into the classroom and discover that doing so improves students' long-term retention of the subject matter. Hardin notes that more workplace skill sets find their way into real estate curricula as a result of interactions between companies and the educational system.

In their study of the evolving landscape of business education, Manning and Roulac (2001) offered real estate professors various recommendations for improving their current curricula. The significance of incorporating "real-world active student learning experiences" is emphasised.

(such as projects and internships) significantly improves a student's capacity to use their skills in a professional setting. Furthermore, they support the adoption of a more problem-focused atmosphere in business schools, where instructors and students collaborate closely as professionals' apprentices. These "third-level" courses challenge students to solve challenging real-world issues alongside teachers from business schools and professionals in the field. Students enrolled in these courses must draw from a variety of academic disciplines and interdisciplinary knowledge. Furthermore, they offer an environment in which students may hone "their mental agility, integrity, trustworthiness, concern for others, and tolerance for ambiguity," all of which are critical for real estate professionals to succeed. According to Redman (2001), kids find it easier to absorb and enjoy learning from the internet than from traditional sources. Undergraduates can now study about pricing, mortgage rate, location, valuation, and other real estate-related topics "hands-on" on the web, instead of just through textbooks or real-world experience.

II. REVIEW OF THE LITERATURE ON LEARNING STYLES

According to (Abbas Pourhossein Gilakjani, 2012), the goal of utilising learning styles is to determine the most effective strategies for teachers to instruct students and for students to learn. (Veena N. and Shailaja Shastri, 2013) found that there was a significant difference in learning styles and preferences among different categories of students. (Rajshree S. Vaishnav, 2013) concluded in her paper that there exists a significant effect of different styles



and academic achievement of students. (Aminu Yabo Umar, 2015) came to the conclusion in his thesis that NCE students' academic performance in ecology, scientific attitude, and emotional intelligence could all be improved by using differentiation based on visual, auditory, and kinesthetic learning styles. (Deeksha Thakur, A K Vij, and Charu Shri, 2017) came to the conclusion in their paper that learning style inventories are very helpful in determining an individual's preferred method of learning. They also assist in identifying potential areas of strength and improvement in the way learners approach the material and learning activities. Since these inventories aid in identifying each person's distinctive qualities, this idea merits special consideration.

THEORETICAL FRAMEWORK

The ability to actively express oneself in writing is a powerful learning tool. Colleges and universities are seeing a significant impact from technology, leading to what could be the most difficult time in higher education history. Distributed learning is one way that technology and education are coming together. As a subclass of distributed learning, distance learning caters to students who might be geographically and temporally apart from their peers and instructors. With distributed learning, time is no longer a barrier to learning and students have more flexibility. It can take place on or off campus. Technology is a feature shared by distributed and remote learning. On-campus training and distance learning are becoming more similar. With remote, commuter, and residential students using online delivery methods and platforms. The possibilities for interaction between teachers and students are increased through distributed learning, which also includes collaborative learning and the use of simulations and visual aids. Dispersed education through reinforcement, environments can enhance traditional learning by giving students the chance to delve much deeper into a subject, study the information at their own pace, or acquire more experience outside of scheduled class periods or homework assignments. The length of a class session is no longer a limiting factor in distributed learning.

One subclass of distributed learning is distance learning. It can take place on or off campus, giving students more freedom and removing time as a barrier to learning. It focuses on students who could be separated in time and distance from their peers and the instructor. Rather than merely serving as an online lecture replacement, distributed learning expands the avenues for communication between instructors and students by integrating collaborative

learning, visual aids like simulations, and more. Asynchronous learning enables simultaneous speaking by all participants. But in asynchronous learning, there is no opportunity for self-articulation—an essential learning mode that is not restricted like in a regular seminar that revolves around taking turns.

Frاند (2001) asserts that innovative technologies present promising avenues for enhancing learning outcomes and expanding the pool of potential students. Many people believe that the internet can completely change the way people learn. The attitude that reality is no longer real and that doing is more essential than knowing is what he called "the information age mindset," which is reflected in certain actions and qualities. He added that multitasking is seen as a way of life and that trial-and-error, or experimentation, is preferable than reasoning.

The distinction between producer and consumer is becoming more hazy in the information age, as typing is preferred over handwriting with zero tolerance for delays. Frاند (2001) noted that while prior researchers encountered formal education in a lecture-based, authority-based setting, learning via exploration is increasingly becoming the norm due to the vast amount of knowledge available on the internet. The web has a lot of effects on both the kinds of students we teach and the learning environments we create. With synchronous learning, threaded discussions, and self-paced study, it provides e-learners with a holistic learning experience as an exploration tool to access a multitude of knowledge and resources. It engages students by facilitating innovative teaching strategies that promote teamwork and a feeling of community. It is also user-friendly for both learning providers and students.

According to Talley (2001), there is broad agreement that using the Internet to teach economics can potentially improve students' attitudes and learning outcomes.

According to Coates and Humphreys (2001), "cyber economics courses offered by academic units are substitutes for classroom-based courses" because they ensured student access and required them to use critical thinking skills due to the immediate feedback from online research and writing assignments. It helps students to complete their coursework, he claimed.

THE IMPLICATIONS OF LEARNING STYLES FOR TEACHING AND LEARNING

There isn't enough solid data to say one learning style is superior to another at this time. Ellis (2005) states



that although learners exhibit a variety of styles, it is still unclear whether certain styles lead to more and faster learning than others. Understanding learning styles is crucial, in my opinion, for both teachers and students, even though learning style models can still provide some clarity on the complex process of learning. Students can have a better understanding of the learning process and a higher awareness of learning if they discover what kind of learners they are. With deeper understanding of their learning style, students may comprehend why they feel comfortable studying one part while uncomfortable learning another. Additionally, students will be aware of their strengths and the reasons behind their learning deficit. As a result, students can somewhat alter their learning in accordance with the instructional style or learning environment. Most significantly, after evaluating their learning preferences and strengths and weaknesses, individuals can choose how best to use their learning tactics. Academic success is more closely correlated with learning tactics than with learning styles. Additionally, they are able to establish self-appropriate, realistic learning objectives. They might excel as readers if they are visual learners. Speaking and communicating may come naturally to auditory learners. Learning preferences are essentially set,

Furthermore, just as it is difficult to alter one's personality, habits, or cognitive style, it is also difficult to alter one's learning style. In this regard, it is increasingly crucial for teachers to comprehend learning style theories and to become familiar with their students' learning preferences. It is imperative for educators to keep in mind that pupils' learning styles differ from one another. The classroom's diversity of learning styles is what makes teaching challenging. Based on this, we must modify our pedagogical approaches and develop a well-rounded curriculum. Prior to anything else, nevertheless, we ought to survey our students to find out their preferred methods of studying. Considering the survey's findings,

Haynes lists the activities that are suitable for students of different learning styles; for auditory learners, these activities include interviewing, debating, participating on a panel, giving oral reports, and participating in oral discussions of written material. For visual learners, these activities include computer graphics, maps, graphs, charts, cartoons, posters, diagrams, and so on. Our teaching methods will accommodate the differences in learning styles. On the other hand, we can put students of the same or similar learning styles into one class, and this will

make teaching more student-oriented and easier to handle., and text that is heavily illustrated. Some of the favourite activities for tactile learners are modelling, board games, and drawing. Playing games that require the entire body, movement exercises, building models, and conducting experiments are all beneficial for kinesthetic learners. Chorus reading, audiobooks, narrative writing, computer programmes, games, and group activities are all recommended for international learners. Information is delivered in progressive steps with teacher-directed, explicit goals and needs for analytical learners. Another inference would be that not every student in a class can benefit from the same strategy or technique of instruction. The widely used communicative technique might not be appropriate for students who learn best visually or analytically.

If the tasks are well-designed and appeal to a variety of learner types, a task-based teaching strategy could be a wise decision. As learning strategy research gains traction, the interest in learning strategy among EFL and ESL professionals is growing. The dearth of compelling test data makes learning style research appear antiquated. However, it is beneficial to go over the fundamental concepts of learning style. It is critical for us to acknowledge the variety of learning styles in our classroom practices.

RESEARCH OBJECTIVE:-

1. To find out the learning style of estate management students.

III. RESEARCH METHODOLOGY:-

The study involved 180 students in total, 60 of whom were enrolled in the estate management programmes at Kaduna State University, Kaduna Polytechnic, and Nuhu Bamalli Polytechnic, all located in Kaduna State, Northwestern Nigeria. The research was carried out in November and December of 2023. Students are categorised into three groups based on their preferred learning styles: kinesthetic, auditory, and visual learners.

The Barsch learning style inventory questionnaire was voluntary, and respondents' privacy was guaranteed. The analysis is provided below. As stated in the instrument cover, the student's choice to complete the questionnaire signified their consent to participate. We chose the VARK instrument because it was straightforward for students to complete and was clear, brief, accessible, and reasonably priced. There are sixteen multiple-choice questions on the test, and four of the items correspond to each of the four sensory modalities. Depending on the questions they thought were



relevant, a respondent could choose one of four possible answers. Fleming (1995) created a proprietary method that was used to score the VARK instrument. Given that the study was both exploratory and descriptive in nature, descriptive measures were calculated to look at the preferences for learning styles. The demographics of the participants and their answers to the VARK instrument were the main topics of the SPSS data analysis. Descriptive data, frequencies, and percentages for the sample's characteristics as well as the students' responses to the VARK instrument were obtained in order to complete the analysis (crosstab)

Table 1 Learning styles preference

Sample population	Accommodator	diverger	assimilator	converger	N
Kaduna state university	12	27	8	21	68
Kaduna polytechnic	15	22	35	17	89
Nuhu bamalli polytechnic	9	13	20	11	53
Bayero University	3	24	18	2	47
Kano university of Technology	2	7	15	6	30

Interpretation of the Table: Learning Styles Preference

The study conducted at various institutions in Kaduna and Kano States, Nigeria, aimed to assess the preferred learning styles of estate management students. Using the Barsch Learning Style Inventory, the students were grouped into four categories based on learning styles: Accommodator, Diverger, Assimilator, and Converger. Below is a breakdown of the findings based on the table provided:

Institutions Involved

- Kaduna State University (KSU)
 Total Participants: 68
 - Accommodators: 12 students
 - Divergers: 27 students
 - Assimilators: 8 students
 - Convergers: 21 students
- Kaduna Polytechnic (KADPOLY)
 Total Participants: 89
 - Accommodators: 15 students
 - Divergers: 22 students
 - Assimilators: 35 students
 - Convergers: 17 students
- Nuhu Bamalli Polytechnic (NUBA POLY)
 Total Participants: 53
 - Accommodators: 9 students
 - Divergers: 13 students
 - Assimilators: 20 students
 - Convergers: 11 students
- Bayero University (BUK)
 Total Participants: 47
 - Accommodators: 3 students
 - Divergers: 24 students
 - Assimilators: 18 students
 - Convergers: 2 students
- Kano University of Technology (KUT)
 Total Participants: 30
 - Accommodators: 2 students
 - Divergers: 7 students
 - Assimilators: 15 students
 - Convergers: 6 students

Summary of Findings

- Most Common Learning Style

The most preferred learning style across the institutions is the Assimilator type. This group has the highest representation, particularly at Kaduna Polytechnic, with 35 students (the highest single count in the table).

- Least Common Learning Style

The Accommodator learning style is the least common across the institutions, with only 2 students identified at Kano University of Technology and 3 at Bayero University. These figures suggest that this



learning style is less favored among the students in the study.

- Institutional Trends

- Kaduna State University has a significant proportion of Divergers (27 students), indicating that students here may prefer learning through observation and reflecting on experiences.

- Kaduna Polytechnic stands out with a large number of Assimilators, indicating that many students here prefer learning by understanding theories and logical analysis.

- Bayero University shows a similar trend, with Divergers and Assimilators forming the majority, although with a higher number of Divergers.

- Divergence Across Institutions

The distribution of learning styles differs across institutions, suggesting that the educational approach and possibly the student demographics influence preferred learning methods. For instance, Kaduna Polytechnic has a higher proportion of Assimilators, while Bayero University students predominantly prefer Diverging as a learning style.

Implications of the Study

The variety in learning preferences across these institutions highlights the need for diverse teaching methods in estate management programs. Understanding that students have different ways of processing and retaining information can help educators design curricula that accommodate a range of learning styles, potentially enhancing learning outcomes.

1. Efficiency of Property Valuation: The results can guide how educational tools and techniques are designed in property valuation courses. For example, students with assimilative learning styles may benefit from structured lectures and theoretical discussions, whereas accommodators and divergers may require more hands-on or experiential learning opportunities.

2. Investment Decisions: Understanding learning styles can also influence the approach to teaching subjects like property investment. Assimilators and convergers may respond better to data-driven, analytical approaches, while divergers may prefer case studies and real-life scenarios to aid in decision-making.

This table and its interpretation provide valuable insights into the diverse learning preferences of estate management students in Northwestern Nigeria, which can inform more effective pedagogical strategies.

IV. CONCLUSION

Majority of the students in all the institutions are assimilator learners, which means lecturers should try to use it more often in teaching the students in estate management.

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