

**Introducing NFT Model as a pedagogy using Dale's and Bloom's Taxonomy:  
A complementary tool for learning instruction**

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## **ABSTRACT**

Advanced pedagogy is the way to enhance teaching and learning performance for non-financial students. There are different methods in use across the globe for innovative teaching of higher learning students. The use of multimedia and technology empowers educational processes by increasing interaction between teachers and students. Hybrid teaching and blended learning follow an integrated approach to teaching that blends with students' interests and teacher's personality that needs curriculum-appropriate methods. This includes e-learning in addition to the face-to-face teaching that is customarily used in teaching . While teachers are still an authority figure in a student-centered teaching model, they both play an equally active role in the learning process. Teachers should thus apply themselves to utilizing innovative methods so that the students' learning process is as free-flowing and that the methodology used creates an atmosphere adaptable to conducive learning environment. The application of innovative teaching and learning methods is critical if we are to motivate and enculturate a spirit of learning and cooperation by encouraging others and doing your share on the part of students. The role of education is to ensure that while academic personal are involve in active teaching, an effort is made to ensure alignment between what is taught and what is comprehensible in relation to students. Linguistically diverse, cultural backgrounds and the familiarity with the expected standards have profound effects on teaching methods.

Students must frequently engage in collaborative learning activities such as selecting, organizing, locating, synthesizing and using relevant information sources to construct meaning about some particular knowledge. Such activities have been assumed to lead to higher levels of knowledge acquisition and learning. The goal of this study is an ongoing and progressive examine of how Edger Dale's Cone of Experience and Bloom's taxonomy is employed to positively influence student learning. In this conceptual research the methodology used was hinged on analytic processes for material already published in this area. Key variables under investigation forecast on integration of Dales and Blooms theories for theoretical perspectives with the researchers pedagogy known as the NFT.

The researcher implemented the NFT pedagogy in an academic setting to non-financial student in a period of 12 months and observed positive results.

The researcher anticipates that the findings of this study will contribute to the enhancement of both teaching-learning and assessment process, which hopefully will uplift the learner to learn at a deeper level in a manner that incorporates small-group learning, achieve higher grades, retain information longer, acquire greater communication and teamwork skills, and gain a better understanding of the module.

**Keywords**

Collective creativity, Collaborative Learning, Innovative teaching and learning, Teacher education and methodology.

## 1. INTRODUCTION

This investigation principally inquires how utilizing Dale's Cone of Experience and Bloom's scientific classification to emphatically impact understudy learning. The utilization of inventive instructing and learning strategies is basic on the off chance that we are to propel and induce a feeling of learning just as excitement with respect to understudies. Dale's Cone of Experience is a model that fuses a few speculations identified with instructional structure and learning forms. During the 1960s, Edgar Dale speculated that students hold more data by what they "do" rather than what seems to be "heard", "perused" or "watched". His examination prompted the improvement of the Cone of Experience. The Cone was initially evolved in 1946 and was proposed as an approach to depict different learning encounters. Basically, the Cone shows the movement of encounters from the most concrete (at the base of the cone) to the most dynamic (at the head of the cone). The cone of experience is a pictorial gadget used to clarify the interrelationships of the different sorts of various media, just as their individual "positions" in the learning procedure. The cone's utility in choosing instructional assets and exercises is as handy today as when Dale made it.

While then again, Bloom's scientific classification development was to classify the objectives of any educational program as far as unequivocal and understood subjective aptitudes and capacities. It was viewed as one of the vital models that add to educational plan improvement in the 21st century. It continues on in and makes due against the time. It has been extended, explained, and deciphered in different ways and its expansiveness has been clarified. Due to searches and studies on unique scientific categorization, numerous remarks and usage, which are distinctive in specific ways, are introduced structure drafting work to expanded guidelines. In spite of the assortments, just a single modification is acknowledged (Forehand, 2005). As per (Anderson and Krathwohl, 2001)Anderson and Krathwohl (2001). This update was modified by an understudy of Bloom, who was one of the architects of the first scientific categorization. This reconsidered scientific categorization endeavors to address a portion of the issues with the first scientific categorization. In contrast to the 1956 form, the reexamined scientific

categorization separates between "recognizing what," the substance of reasoning, and "knowing how," the techniques utilized in tackling issues.

The objective of this examination is to inspect techniques for educating by utilizing Dale's Cone of Experience and Bloom's Taxonomy to emphatically affect the understudy of attaining a convergence in utilizing the Nisi Financial Triad (NFT) model for guidance to streamline the Applied Accounting Skills module for non-money related understudies.

## **2. THEORETICAL APPLICATION OF CONCEPTS**

### **Dale's Cone of Experience**

Dale's Cone of Experience is a model that incorporates several theories related to instructional design and learning processes. During the 1960s, Edgar Dale theorized that learners retain more information by what they "do" as opposed to what is "heard", "read" or "observed". His research led to the development of the Cone of Experience. Today, this "learning by doing" has become known as "experiential learning" or "action learning". Despite the fact that he followed his thoughts back similarly as Pestalozzi (1746 – 1827), who spearheaded the idea of learning through movement, and Froebel (1782 – 1852), who originally advanced the rule that youngsters have one of a kind needs and capacities, Edgar Dale's work was most intensely affected by John Dewey (1859-1952). Dewey focused on the significance of the congruity of taking in encounters from schools into this present reality and contended for a more prominent spotlight on higher-request results and important learning.

In his first version of *Audiovisual Methods in Teaching* (1946), Dale extended Dewey's idea of the progression of learning through understanding by building up the "Cone of Experience" which relates a solid to digest continuum to varying media alternatives (Seels, 1997). Dale (1969) viewed the Cone as a "visual similarity" (p. 108) to show the movement of taking in encounters from the solid to the theoretical (see Figure 1) instead of as a remedy for guidance with media. In the last release of *Audiovisual Methods in*

Teaching (1969), Dale coordinated Bruner's (1966) three methods of learning into the Cone by classifying learning encounters into three modes: enactive (i.e., learning by doing), notable (i.e., learning through perception), and emblematic experience (i.e., learning through deliberation).

## How Can Instructors Use the Cone of Experience?

# The Cone of Learning

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Figure 1. Source: Edgar Dales (1969)

In pushing toward the zenith of the Cone from immediate, intentional encounters to verbal images, the level of deliberation step by step increments. Subsequently, students become onlookers instead of members (Seels, 1997). The base of the Cone spoke to "deliberate experience that is seen, taken care of, tasted, contacted, felt, and smelled" (Dale, 1954, p. 42). On the other hand, at the head of the Cone, verbal images (i.e., words) and messages are exceptionally conceptual. They don't have physical similarity to the articles or thoughts. As Dale (1969) stated, "The word horse as we compose it doesn't resemble a pony or sound like a pony or feel like a pony" (p. 127).

Dale (1969) clarified that the expansive base of the cone delineated the significance of direct understanding for compelling correspondence and learning. Genuine and solid encounters are important to give the establishment of student's lasting learning. The recorded significance of Dale's Cone rests in its endeavor to relate to mixed media applications to varied to mental hypothesis (Seels, 1997) and the Cone has formed different arrangements of media choice rules from that point forward. For instance, affected by Dale, Briggs (1972) outlined general standards for media choice as per the period of students, the kind of students, and the sort of errand.

Dales' cone of experience is a tool to help instructors make decisions about resources and activities. The instructor can ask the following questions:

- How does this instructional resource augment the information supplied by the textbook?
- How far is it removed from real-life?
- What and how many senses can students use to learn this instructional material?
- Where will the student's experience with this instructional resource fit on the cone?
- Does the instructional material enhance learning?

James and Galbraith (1985) regarding major learning styles and other factors important to student learning integrate work into effortless and unembellished instrument for instruction. As per the model this instructions instrument creates a conversion across all available sensory modes of instructions such as Visual Learners, Interactive Learners, Haptic Learners, Olfactory Learners, Aural Learners, Kinesthetic Learners, Print-oriented Learners. Their work known as the Perceptual Learning styles. The following table articulate depiction of the seven learning styles.

a)	Visual Learners like to observe people and situations.	A visual learner often has to see something, not just hear it, to learn. Slides, pictures, graphs, tables, demonstrations, and overhead transparencies are useful

		ways of helping these people learn. Research indicates that most people in their twenties and overuse this perceptual style as their primary way of learning material.
b)	Aural Learners learn best by listening.	They learn by interacting as well as listening, these learners often do not cause interruption to a lecture. In general, aural learners like to listen carefully, rarely speak out during a lecture and easily remember what they hear. People who listen to books or speakers on tape are aural learners.
c)	Haptic learners learn best through their sense of touch. demonstration that is followed by hands-on practice.	They need to feel objects or to touch as many things as possible to learn something about them. By touching an object, these people are often able to form a visual image of it. "Hands-on" experience is essential for them to learn. People who combine haptic and visual elements of perception learn best through a
d)	Interactive Learners learn best when verbalizing their thoughts and feelings.	Small group discussions, lively question-and-answer sessions, and debates are techniques that engage this type of learner. People over the age of fifty ranked this style of learning as second in terms of preference, and younger learners ranked it as a third. Programs that emphasize small-group learning are very successful.
e)	Print-oriented Learners often learn best by reading and writing. Reading books, magazines or journal articles help these learners to easily retain information	. When print types attend a lecture, you often find them jotting down notes. Being able to see and record what they hear helps them focus and learn better.

f)	Kinesthetic Learners need to move to learn..	You might find such people fidgeting, knitting, doodling, or woodcarving during a lecture. Instead of distracting them, movement helps this type of person to concentrate. When they speak, kinesthetically oriented people often use hand motions to describe what they are saying. This kind of learner would probably volunteer to take part in a role-playing activity because it involves movement
g)	Olfactory Learners use their sense of smell or taste to learn.	These are the people who associate what they learn with particular smells or tastes. They might walk into a room and smell an odor which immediately reminds them of a past learning experience. Recent research on the brain indicates that smell originates in the most primitive part of the brain and is, therefore, a powerful reminder of people or past events.

Table 1: Source - James, Wayne B., & Galbraith, Michael W. (1985 January) Perceptual Learning styles: Implications and techniques for the practitioner. *Lifelong Learning*, 20-23).

### **Bloom's Taxonomy**

In 1956, Dr. Benjamin Bloom, an educational psychologist, in collaboration with Max Englehart, Edward Furst, Walter Hill, and David Krathwohl put forward a theory to upgrade the teaching-learning process from the lower level of rote-learning and memorization to the higher level of analysis, evaluation, creativity, and problem-solving approach. Bloom's Taxonomy comprises three domains of academic learning: cognitive, affective and psychomotor. The cognitive domain includes mental skills to produce knowledge, the affective domain adds gradual emotional development of attitude/self, whereas, the psychomotor domain encompasses physical skills. Hence, it is abbreviated as KSA (knowledge [cognitive], skills [psychomotor] and attitude [affective]). Originally, the cognitive domain was based on these six stages: knowledge, comprehension, application, analysis, synthesis, and evaluation (Bloom, 1956). During the mid-nineties,

Lorin Anderson along with David Krathwohl revised the cognitive domain with a new approach and added three changes.

They rearranged the categories, changed their names from noun to verb form and created a process and a level of knowledge matrix (Anderson, Krathwohl & Blooms, 2001).

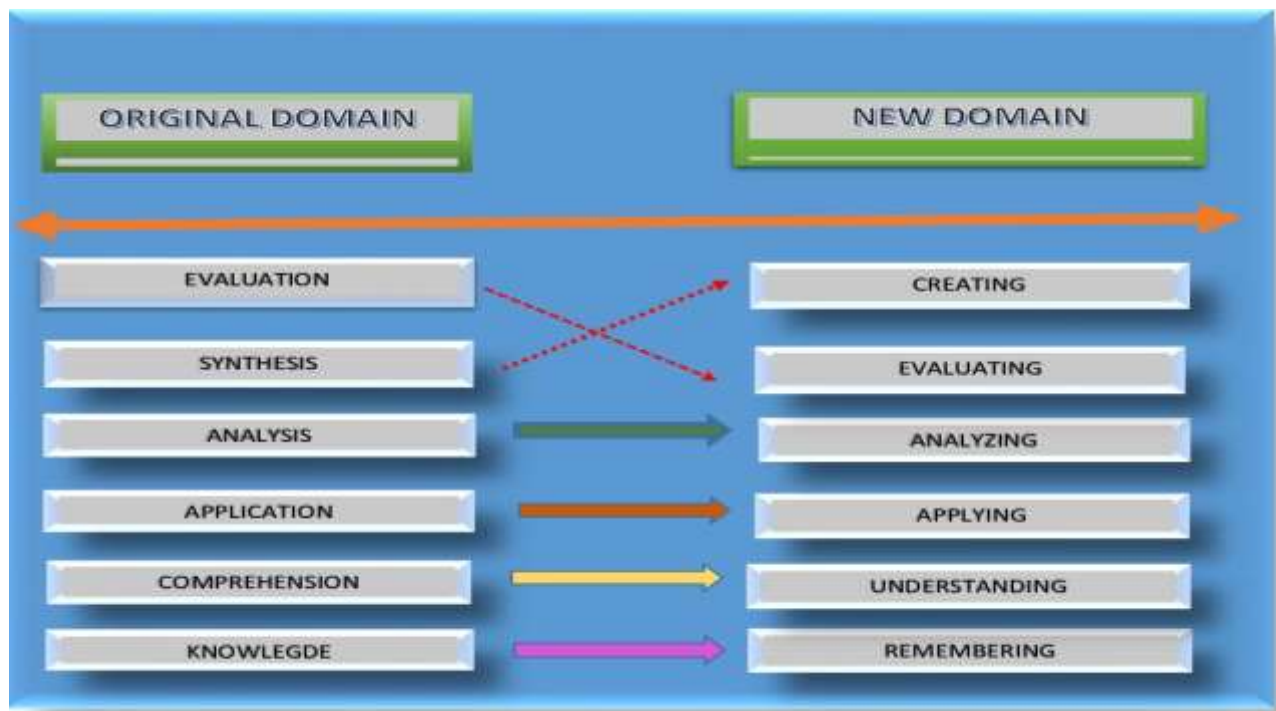


Figure 2: New Blooms Taxonomy (Anderson, Krathwohl & Blooms, 2001)

## Teaching Methodology

Taken to its extreme interpretation, teachers are the main authority figure in a teacher-centered instruction model. Students are viewed as passive receivers of knowledge from their teachers through lectures and direct instruction, with an end goal of positive results from testing and assessment. In this style, teaching and assessment are viewed as two separate entities; student learning is measured through objectively scored tests and assessments.

## **The different learning methods**

### ***Individual learning***

This is the most popular system in most universities. A lecturer stands in front of the students and delivers the learning material. This is a traditional learning approach where students expect to learn the work on their own, as they are evaluated individually at the end of a particular unit or units. A plan is devised for the individual and not for the group; this is referred to as the Individual Learning Plan (ILP). ILP is a plan, which focuses on the individual learner and not a class, course or group. The purpose of the ILP is to specify specific goals and learning objectives for a learner for a specific period. Traditional deductive approaches to teaching are premised on a catch-and-toss model of learning. Lectures pitch, students catch. Students, in turn, toss back the assignments and the exam. He also mentions that Keith Swayer calls this approach "instructions". According to the traditional script for teaching and learning that is still very much alive in every other tertiary faculty, the sending and receiving minds are envisaged as separate and sequential from the sensory systems taking stuff on board. The teacher as a pitcher and the learner as the fielder; each seen as having discreet and internalized, not socialized, systems of meaning-making and information processing; each supposedly with distinct, rational and deliberative (a-social) mind-selves (Jones, 2011).

Individualized instruction is also referred to as a method of instruction in which the content, instructional technology (such as materials) and pace of learning are based upon the abilities of each learner. Others refer to this method as a chalk and talk method where the teacher is supposed to be a know-all. He stands in front of the class and writes on his chalkboard and the class is supposed to sit attentively and take what the teacher is giving to them.

### ***Cooperative learning***

Cooperative learning is a successful teaching strategy in which small teams, each with students of different ability levels, use a variety of learning activities to improve their understanding of a subject. Although this learning method has been used mostly for lower grades, if it is used effectively it can yield better results. Its success lies solely on three interrelated factors

- a. Group goals: Cooperative learning teams work to earn recognition for the improvement of each member of the group.
- b. Individual accountability: Each member of a team is assessed individually. Teammates work together, but the learning group gains of the individual form the basis of a team score.
- c. Equal opportunities for success: Individual improvement over prior performance is more important than reaching a pre-established score.

### **The benefits of this method include**

- Student achievement: The effects of this achievement on the student is positive and long-lasting.
- Student retention: Students are more likely to stay at school and not drop out.
- Improved relations: This comes with the benefits of cooperating.
- Improved critical thinking skills: More opportunities for critical thinking are created.
- Promoted social skills: Students' social skills are enhanced.
- Heightened self-esteem: because their work is valued, their self-esteem and respect escalate.

Linked with this method of cooperative learning is another method called positive interdependence. Positive interdependence is an element of cooperative and collaborative learning where members of a group who share common goals perceive that working together is individually and collectively beneficial, and success depends on the participation of all the members.

### **Collaborative learning**

Collaborative learning (also known as Community-oriented) is an unpredictable wonder that can be broken down at numerous different levels. One of the most fundamental divisions is among individual and social degrees of examination. From one viewpoint, all activity and learning can be viewed as individual — it is people who act and learn — and thoughts of gathering learning and activity must be gotten from these fundamental structure squares. However, aggregate activity must be viewed as something beyond a total of separated individual acts. Also, as depicted in various examinations (see for

example Plotzner et al., this volume; Littleton et al., this volume), communitarian learning can be both quantitatively and subjectively not quite the same as individual learning.

From another point of view, society or culture is more fundamental than the individual, having a proceeding with chronicled nearness, bit by bit developing as an outcome of the amassed reasoning and activity of the people that have involved it. The fundamental test here is to comprehend the particular idea of human discovering that puts forth this aggregation of attempts conceivable. The appropriate response recommended here is that people are equipped for externalizing (or "objectivising") thinking into apparatuses (material instruments, for example, pens and PCs, and semiotic devices, for example, sign-frameworks). Such apparatuses would then be able to be appropriated by others (counting new individuals from the way of life, particularly kids), who can thus additionally utilize and refine them. Allocation — the unique sort of discovering that worries such social articles — takes sign-interceded help from different individuals from the way of life, who framework youngsters' first endeavors with the social item so that they step by step move from having the option to utilize instruments under direction to having the option to utilize them all alone, and in their own particular manner (Leontjev, 1981; core focuses likewise cited in Tolman, 1988). In Vygotsky's words: "Each capacity in the student's social advancement shows up twice: [...] first, between individuals (interpsychological), and afterward inside the youngster (intrapsychological)." (Vygotsky, 1978, p. 57).

Matunga & Hernandez-Leo define collaborative learning techniques as those techniques that support the construction of joint knowledge and the sharing of meanings through fostering potentially effective social interactions (Dillenbourg, 1999). They regard these as multiple models and implementation tools that engage learners in knowledge-intensive social interactions with identified significant learning outcomes.

These models involve the application of collaborating-triggering mechanisms and the use of diverse collaboration spaces and implementation, communication and coordination mechanisms. A collaborating-triggering mechanism is identified as:

- Group formation according to specific policies.

- Role allocation and rotation.
- Distribution of knowledge.

*Collaboration spaces are:*

- Shared boards. These are collaborative boards for group projects or big projects also referred to as Pinterest boards.
- Wikis. Wikis are a piece of server software that allows users to freely create and edit Web page content using any Web browser.

*Communication and coordination mechanism:*

- Flow control. This is the management of data flow between computers or devices or between nodes in a network so that data can be handled at an efficient pace.
- Group awareness.

*Authentic learning:*

Authentic learning refers to the learning methods that are based on the student's actual experiences. It incorporates the actual learning that the student acquires from his community and that which he gets from a formal institution. Differences between the two learning modes are merged to create an environment that is conducive to authentic learning. Issues like cultural experiences are enhanced rather than brushed aside. These become part of the student's learning experiences. Stein and Isaacs et al, (2004) describe authentic learning experiences as those that are personally relevant from the learner's perspective and situated within the learner's appropriate social context.

To define authentic learning they quote (Van Ouers & Wardekker, 1999, p. 231) authentic learning is defined as the dynamic relationship between a personality-under-construction and cultural-practices- being-reconstructed, which is aimed at developing an authentic and an autonomous person able to participate in a competent, yet critical in cultural practices. Ma and Lee (2012) quote the following authors to explain authentic learning. They quote (Brown, Collins and Duguid, 1989) defining authentic learning as "a strategy fosters student's active participation and engagement in learning by situating problems and questions in real-world context".

They further emphasize that the tasks that authentic learning presents as very beneficial for the students. For students, challenging tasks in authentic learning are more relevant to practical, real-world tasks when compared to classroom-based projects. Furthermore, authentic learning emphasizes the importance of collaboration in achieving goals from multiple perspectives rather than a single perspective of learning (Herrington, Reeves & Oliver, 2006). For learning to be authentic, it has to have the nine principles. Bozalez, & Gachago et al (2013) states nine principles of authentic learning which were identified by Herrington et al (2010).

These were:

- a. Authentic context: which states that the curriculum should not be simplified and broken up into step by step processes but should rather mirror real-world situations to reflect the way knowledge would be used in these situations
- b. Authentic Tasks: the task should be well designed, complex, comprehensive and completed over an extended period, mirroring that are relevant to the kind of problems to which knowledge is applied in the real world.
- c. Access to expert thinking and modeling processes
- d. Provide multiple roles and perspectives.
- e. Support collaborative construction of knowledge.
- f. Promote reflection to enable abstractions to be formed.
- g. Promote articulation to enable tacit knowledge to be made explicit.
- h. Provide coaching and scaffolding by the teacher at critical times.
- i. Provide an authentic assessment of learning within the tasks.

They further argue in their paper that authentic learning is more effective when combined with other strategies like student-centered learning and service-learning strategies. Student-centered learning has as its core objective the actual involvement of the student through their participation in the learning activity its benefits involves:

- Increased critical thinking.
- Improved attitudes and motivation by students towards learning.

Service-based learning involves the students in community-based problem solving with the material they have learned in class. The benefits include amongst others:

- Enhance the student's sense of the importance of serving others.

- Increase participation in civic engagement.

It builds interpersonal skills and cultural competencies like leadership, appreciation of diversity and community engagement. Each of these teaching methods seeks to increase students' motivation and involvement (and therefore learning), and all three strategies may use similar tactics to accomplish these goals.

**The research locale is at The University of Johannesburg (UJ), Auckland Park Bunting (APB) and Soweto (SWC) Campuses**

The lecturer selected for analysis was the service module in different Diploma programs at the APB and SWC campus. This is a compulsory module, as it was considered necessary for the teaching method and to investigate the pass rate in a module taken by all students in a given year. Importantly, they would already have successfully entered in a higher learning institution and completed a year or two of academic study, although the range of ability would still be wide. Thus, it would be possible to gain an understanding.

The purpose of this module is to introduce basic financial accounting at a level consistent with non-accounting students. In this module, the students are provided with the basic principles of accounting, the accounting process, accounting equation, the duality concept that determines the financial position of an entity and the recording of each transaction to the financial statements. The module helps students to understand the process flow of accounting elements of the financial statements assets, liabilities, equity, income and expenses, and the accounting records of a basic entity of a sole trader as a service entity and a trading entity.

- **The module name, code, NQF level, credits and prerequisites**

Module name	Applied Accounting Skills
Module code	AAS11A1&AAS1AA1
NQF level	5
Credits, Calculated according to notional hours	15

Table 2 – Module details

- **Level Descriptors for the South African National Qualifications Framework:  
NQF Level Five**

- a. Scope of knowledge, in respect of which a learner can demonstrate an informed understanding of the core areas of one or more fields, disciplines or practices, and an informed understanding of the key terms, concepts, facts, general principles, rules and theories of that field, discipline or practice.
- b. Knowledge literacy, in respect of which a learner can demonstrate the awareness of how knowledge or a knowledge system develops and evolves within the area of study or operation.
- c. Method and procedure, in respect of which a learner can demonstrate the ability to select and apply standard methods, procedures or techniques within the field, discipline or practice, and to plan and manage an implementation process within a well-defined, familiar and supported environment.
- d. Problem-solving, in respect of which a learner can demonstrate the ability to identify, evaluate and solve defined, routine and new problems within a familiar context, and to apply solutions based on relevant evidence and procedures or other forms of explanation appropriate to the field, discipline or practice, demonstrating an understanding of the consequences.
- e. Ethics and professional practice, in respect of which a learner can demonstrate the ability to take account of, and act by, prescribed organizational and professional ethical codes of conduct, values, and practices and seek guidance on ethical and professional issues where necessary.
- f. Accessing, processing and managing information, in respect of which a learner can demonstrate the ability to gather information from a range of sources, including oral, written or symbolic texts, to select information appropriate to the task, and to apply basic processes of analysis, synthesis, and evaluation on that information.
- g. Producing and communicating information, in respect of which a learner can demonstrate the ability to communicate information reliably, accurately and coherently, using conventions appropriate to the context, in written and oral or signed form or in a practical demonstration, including an understanding of and respect for conventions around

intellectual property, copyright, and plagiarism, including the associated legal implications.

- h. Context and systems, in respect of which a learner can demonstrate the ability to operate in a range of familiar and new contexts, demonstrating an understanding of different kinds of systems, their constituent parts and the relationships between these parts, and to understand how actions in one area impact on other areas within the same system.
- i. Management of learning, in respect of which a learner can demonstrate the ability to evaluate his or her performance or the performance of others, and to take appropriate action where necessary; to take responsibility for his or her learning within a structured learning process, and to promote the learning of others.
- j. Accountability, in respect of which a learner can demonstrate the ability to account for his or her actions, to work effectively with and respect others, and, in a defined context, to take supervisory responsibility for others and for the responsible use of resources, where appropriate.

- **Prescribed course material (textbook)**

The prescribed basic textbook “Accounting: All -in -1 5th Edition by L Cornelius & M Weyers”, Latest Edition 2018. ISBN 9 780409 128574.

Other prescribed literature "Accounting: – An Introduction 12th Edition AND by J.E. Myburgh, J.P Fouche, M Cloete, et al.

- **Learning Units**

Module name: Applied Accountancy Skills	
Module code: AAS11A1	
Weekly Learning Units	
1.	Introduction to the module theory (accounting cycle)
2.	Accounting equation
3.	The general journal
4.	The general ledger and trial balance

6.	Owner's interest/ Equity
7.	Non-Current assets
8.	Current assets
9	Liabilities
10	Income and expenses
11	Completion of the accounting process
12	Presentation of financial statements

Table 3: Learning units

- **The registered service module student in 2019**

Index	Departments	Student academic year	No. of Students
1	TRANSPORTATION	2 <sup>nd</sup> years	95
2	LOGISTICS	2 <sup>nd</sup> years	98
3	MARKETING	1st years	98
4	RETAIL	1st years	97
5	Human Recourse	1st years	112
total			500

Table 4: Registered student

- **Normal time set for teaching and learning**

1	3 Periods per week	45 minutes
2	2 Tutorial	45 minutes
3	3 Revision Seminars	4hours

Table 5: Set time

### Student Profile

About 90 percent of these students have never done accounting at high school; they find themselves forced by their respective curriculums to study accounting. The students who come out of the school system will be doing qualifications where they will not be

specializing in accounting. The majority of students that come out of the school system do not often have the skills required to understand the complicated concepts of accounting at the tertiary level. The aim of accounting for the non-accounting module is to give the students the basic accounting skills, as this is a necessary basic skill needed for a grounded business professional.

### **3. NFT MODEL – A TOOL OF "SIMPLICITY" TO UNDERSTAND AND DO.**

The NFT model for instruction aims to simplify the Applied Accounting Skills module and to have an impact on teaching and learning. This model attempts to combine both theories. Edgar Dale theorized that learners retain more information by what they “do” as opposed to what is “heard”, “read” or “observed”. According to Bloom's taxonomy, each level of knowledge can correspond to each level of cognitive process, so a student can remember factual or procedural knowledge.

- Nisi Financial Triad (NFT)

*A – (The Accounting Cycle Theory)* which is at the top of the model. The student should understand the accounting process in the order in which a transaction that took place, is recorded in the accounting records.

*B – (The Accounting equation theory)* which is in the middle of the model. Students are provided with the basic principles of accounting, the accounting process, accounting equation and the duality concept of accounting.

*C- (The financial statements)* which is at the bottom and the last of the model. The student should determine the financial position of an entity and the recording of each transaction to the financial statements of a basic entity of a sole trader as a service entity and a trading entity.

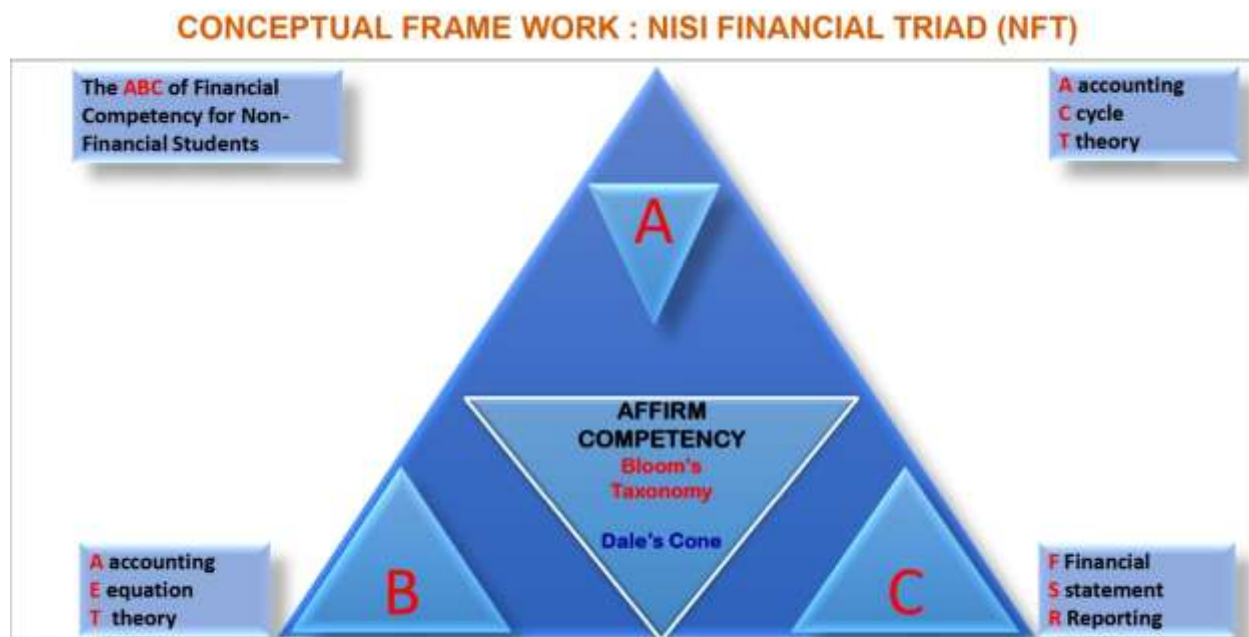


Figure 3 - Source: Own compilation

## Teaching methodology

### *Visual symbols in teaching:*

The visual symbol maybe a picture or shape that has a particular meaning or represents a particular process or idea. Something visible that by association or convention represents something else; and something that represents or stands for something else, usually by association or used to represent something abstract.

### ***Demonstration methods of teaching***

The demonstration may require nothing more than an observation on the part of the student or observer. It is the act of showing or making evidence or circumstance of proving as by reasoning. It may be a description or explanation of a process and illustrated. A demonstration method of teaching is the process of teaching someone how to make or do something in a step-by-step process.

### ***The teaching methodology followed to maximum results***

The general principles, pedagogy and management strategies used for classroom instruction. Class exercises (what to do), Classroom coaching (How to do), Homework, Regular Test (what they remember), Revision Lecturers (knowing how) and Final Test

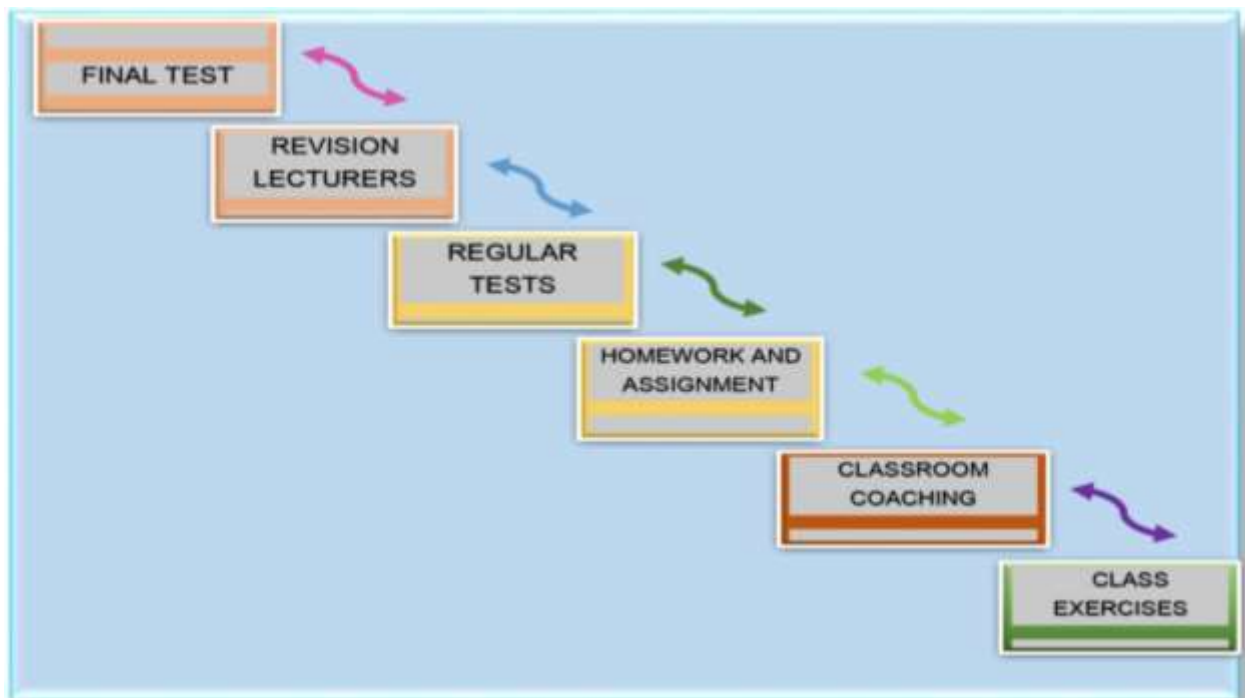


Figure 4 - Source: Own compilation

#### **4. CONCLUSION**

The cone of experience given by Edgar Dale has rightly said that it is not offered as a perfect or mechanically flawless picture to be taken with absolute literalness in its simplified form. It is merely a visual aid to explain the interrelationships of various types of audiovisual materials, as well as their positions in learning processes. The Cone should be considered as a continuum rather than a hierarchy, for students to develop meaningful knowledge, understanding, and skills, their direct experiences must be "associated with abstractions," as Dale noted. Language and expression are essential to skill acquisition. It is important to note that Dale never intended the Cone to depict a value judgment of

experiences; in other words, his argument was not more concrete experiences were better than more abstract ones. Dale believed that any of the approaches could and should be used, depending on the needs of the learner.

### ***Blooms Taxonomy***

According to this taxonomy, each level of knowledge can correspond to each level of cognitive process, so a student can remember factual or procedural knowledge, understand conceptual or metacognitive knowledge, or analyze metacognitive or factual knowledge. According to Anderson and his colleagues, Meaningful learning provides students with the knowledge and cognitive processes they need for successful problem-solving. This skill involves putting things together to make something new.

### Collaborative learning

The learning pyramid recommendations are made from the results of the study:

1. Do we believe a learner can remember 90% of anything?
2. Can an activity be separated from its content and be given credit for learning?
3. How would one even develop a method for testing such broad claims?
4. How should Bloom's Taxonomy incorporate in both the teaching-learning process and assessment practices?
5. How do we develop new ways of reforming teaching-learning?

## References

Anderson, L. W., Krathwohl, D. R., & Bloom, B. S. (2001). A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives.

Anderson, L., & Krathwohl, D. E. (2001). A Taxonomy for learning, teaching and assessing: A Revision of bloom's taxonomy of educational objectives [Abridged Edition]. New York: Addison Wesley Longman, Inc. Retrieved 11 March, 2020 from [www.natefacts.org/JFCSE/v25no1/v25no1Pickard](http://www.natefacts.org/JFCSE/v25no1/v25no1Pickard).

Bloom, B.S.(1956). Taxonomy of educational objectives – The classification of educational goals – Handbook 1: Cognitive domain. London: Longmans, Green & Co. Ltd.

Bruner, Jerome S. Toward a Theory of Instruction, Harvard University Press, Cambridge, MA, 1966, p. 49.

Cornelius, L., & Weyers, M., Latest Edition (2018). Accounting: All-in -1 5th Edition  
Cropanzano, R. (2009). Writing nonempirical articles for Journal of Management: General thoughts and suggestions. Journal of Management, 35, 1304-1311.

Dewey. John. (1916). Democracy and education: an introduction to the philosophy of education. New York: The Macmillan Company.

Dewey, John. (1944). Democracy and Education. NY: Free Press.

Forehand, M. (2005). Bloom's taxonomy: Krathwohl, D. & Anderson, L. (2003). Bloom's Taxonomy. Retrieved 12 Feb 2020, from <http://www.education.com/reference/article/blooms-taxonomy>.

Jones, A. (2011) Philosophical and Socio-cognitive foundations for teaching in higher education through collaborative approaches to student learning. Educational Philosophy & Theory, 43, (9).

James, Wayne B., & Galbraith, Michael W. (1985 January) Perceptual Learning styles: Implications and techniques for the practitioner. Lifelong Learning, 20-23.

Ma, Y.J., Lee. H.H. (2012) Incorporating an authentic learning strategy into undergraduate apparel and merchandising curriculum. Journal of experiential education, 35, 272-289.

Myburgh, J.E., Fouche J.P., Cloete, M et al. "Accounting: – An Introduction 12th Edition.

## **Bibliography**

Antonakis, J., Bartardox, N., Liu, Y., & Schriesheim, C. A. (2014). What makes articles highly cited? *The Leadership Quarterly*, 25, 152-179.

Bozalek, V., Gachago, D., et al (2013). The use of emerging technologies for authentic learning: A South African study in higher education. *British Journal of educational technology*. 44 (4).

Dale, Edgar. (1946). *Audio-visual methods in Teaching*. New York: The Dryden Press.

Dale E (1946). *Audio-Visual Methods in Teaching*. New York: Dryden Press, 66 pages.

Dale Edgar. (1954). *Audio-visual methods in Teaching*. (2nd ed).New York: The Dryden Press.

Dale Edgar. (1969). *Audio-visual methods in Teaching*. (3rd ed).New York: The Dryden Press.

Dale, Edgar. *Audio-Visual Methods in Teaching*, 3rd ed., Holt, Rinehart & Winston, New York, 1969, p.108.

Diamond, Robert M. *Designing and Improving Courses and Curricula in Higher Education*. San Francisco, Jossey-Bass, 1989.

Education. (2012). Bloom's Taxonomy. Retrieved Feb 2020, from <http://www.education.com/reference/article/blooms-taxonomy/>.

Fulmer, I. S. (2012). Editor's comments: The craft of writing theory articles—Variety and similarity in AMR. *Academy of Management Review*, 37, 327-331.

Kim, J., Jisu, L. (2014) Knowledge construction and information seeking in collaborative learning. *Canadian journal of information and library services*, 38, (1).

Lalley, James P. & Robert H. Miller. (2007). *The Learning Pyramid: Does It Point Teachers in the Right Direction?*. *Education* 128, No. 1: 64-79.

Manathunga, K and Hernandez-Leo, D. (2015). Has research on collaborative learning technologies addressed massiveness? A literature review. *Educational Technology & Society*, 18 (4), 357-370.

Short, J. (2009). The art of writing a review article. *Journal of Management*, 35, 1312-1317.

Sutton, R. I., & Staw, B. M. (1995). What theory is not? *Administrative Science Quarterly*, 40, 371-384.

Van de Ven, A. H. (1989). Nothing is quite so practical as a good theory. *Academy of Management Review*, 14, 486-489.

Whetten, D. (1989). What constitutes a theoretical contribution? *Academy of Management Review*, 14, 490-495.

Weick, K. E. (1989). Theory construction as a disciplined imagination. *Academy of Management Review*, 14, 516-531.