Adult Learning Strategies Used in Higher Education Institutions in Zimbabwe for Lifelong Learning in the Accounting Field

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ABSTRACT

The study aims to assess the adequacy of adult learning strategies used for lifelong learning in Zimbabwean higher education institutions. The department of accounting sciences at the state university was used as a case study. The study was informed by Kolb's learning cycle theory, constructivism, and adult learning theory. A descriptive research design was used. The population considered registered level four accounting students and lecturers thereof. Using an Adapted Principles of Adult Learning Scale survey questionnaire by Conti (2004), it was found that teacher-centered adult learning strategies (mainly lecturing) are mostly used than learner-centered ones. Overall, the adult learning strategies used are a score of 107.17 – way below the normed average mean of 146. The standard deviation was also 15.73, which was less than the norm of 20. The study recommends that training or workshops for lecturers on adult learning strategies for teaching should be organized, and that lecturers without teaching qualifications should enroll for postgraduate studies in higher and tertiary education to better understand lifelong learning teaching methodologies. The paper contributes to new knowledge by identifying areas which need improvement when teaching adults for lifelong learning.

Keywords: lifelong learning, adult learning, teaching strategies

BACKGROUND OF THE STUDY

World over, the need to promote economic growth and the reduction of unemployment is regarded as a high priority as this plays a significant role in maintaining economic stability and poverty reduction (Sousa, 2021). Tertiary institutions in this regard play a pivotal role in producing competent and skilled graduates who can transform and drive the economic agenda and self-sustenance of both individuals and the communities at large.

In the United States of America for instance, nearly 43 million adults report a lack of basic English literacy skills necessary for success in the workforce and economic self-sufficiency (Institute of Education Sciences, 2021). To succeed in this mission of providing basic skills and competencies, educational policymakers and institutions of higher learning must make wise choices from a wide range of instructional and support strategies for adult learners. In this case, according to Gocer (2016), focusing on strategies that have been shown to lead to positive outcomes for adult learners can increase the likelihood that adult education programs will provide their participants with skills to help them succeed.

In South Africa, a United Nations study found a gap between innovative teaching and learning methods and a participatory approach at higher education institutions to support interdisciplinary action (Sousa, 2021). The study discovered that by incorporating various approaches in teaching and learning in an education for sustainable development at a South African institute of higher education, social learning indicators such as critical thinking, problem solving, and conflict resolution emerged, and learners are more likely to use their

different perspectives when reasoning to collaborate collaboratively to work toward resolving environmental issues (Sousa, 2021). Other education programs in South Africa have also been incorporated to include education for sustainable development through the development, research, and sharing of good pedagogical and andragogical practice in teacher education (UNISCO, 2009) to produce educators who recognize their responsibility in building a sustainable future (Chisingui & Nilza-Costa, 2020).

Zimbabwe is facing unemployment challenges and stiff economic growth emanating from the quality of graduates being produced in local universities (Mashininga, 2019). As reported by Mashininga (2019), further highlights that a survey by Industrial Psychology Consultancy, a local consultancy firm, indicates that graduates are taking an average of seven years to find employment in Zimbabwe. This poses greater poverty risks and a decline in economic growth if graduates are productively inefficient and with underdeveloped human mind-sets (Chivasa et al., 2021). The researcher has also noted that in accounting education, most learners are only exposed to number crunching rather than being innovative so as to be prepared for life after tertiary education. An enquiry on adult learning strategies is therefore pertinent to ascertain and inform the academia on lifelong learning strategies.

In line with the Global Action Programme, which recognizes educators as the most influential change agents in establishing an education for sustainable development mindset among learners, the United Nations' 2030 Agenda for Sustainable Development introduced Sustainable Development Goals (SDGs) objectives that seek to ensure "inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030. Similarly, in Zimbabwe, the Minister of Higher and Tertiary Education, Science and Technology Development emphasizes the use of the Education 5.0 framework, which encourages innovation and industrialization in tertiary institutions' programs. However, in order to achieve all this, educators should also be equipped with relevant teaching strategies in order to produce highly innovative and problem-solving graduates.

The researchers observed that institutions of higher learning in Zimbabwe play a major role in producing graduates with critical skills and innovative mindsets for employability and self-sustenance, as well as skills for the development of knowledge-based economies that drive innovation and national development (Mashininga, 2019). As reported by the Institute of Education Sciences (2021) the main problem in Zimbabwe`s tertiary education system is the churning out of a large and diverse population of students who are lacking basic skills and competences required to be productive at work places. A survey by Industrial Psychology Consultancy (2018) further shows that university graduates in Zimbabwe are going for an average of seven years without taking any formal employment therefore suggesting a need for institutions of higher learning to produce hands-on employees who can fix things. Against this background, the study therefore intends to conduct an assessment on the adequacy of adult learning strategies that are used in institutions of higher learning for long-life learning. Thus, the study seeks to assess the adequacy of adult learning strategies being adopted by lecturers for lifelong learning; to ascertain challenges in implementing lifelong adult learning strategies, and to come up with policy recommendations for effective lifelong adult learning.

LITERATURE REVIEW

Adult learning is multifaceted, taking place as individuals interact with various groups and organizations in both formal and informal settings (Knowles et al., 2015). Adult education and learning prepare people for new challenges by developing new knowledge, skills, and competencies, as well as promoting change for social and individual advancement (Iversen, Pedersen, Krogh, & Jensen, 2015; Merriam, 2017). Life-long learning is promoted through adult learning experiences (Rachal, 2015). According to Merriam (2017), adult learning studies identified two pathways or perspectives: contextual and critical. Contextual learning is an

educational psychology branch that focuses on the location of learning or the learning environment, whereas critical perspectives are more concerned with learning tasks such as questioning everyday realities, contesting injustice, uncovering power in our daily lives, and reclaiming reasoning (Merriam, 2017).

The Lifelong Learning Concept

Life-long learning is a learning paradigm centred on student life (Hayat, Rustaman, Rahmat & Redjeki, 2019b). UNESCO (Cummins & Kunkel, 2015) establishes life-long learning as an educational paradigm with four pillars: learning to know, learning to do, learning to live together, and learning to be (Delors, 1996). Because of its growing influence on global education policy, life-long learning has become a global phenomenon that significantly changes the basic form of traditional national education systems (Wang, Yuan, & Weidlich, 2017; Regmi, 2015). Lifelong learning is now a major topic in the discourse of human resources, employment, entrepreneurship, and national education (Hayat et al, 2019), as well as a long-standing priority of the EU (European Union), with an emphasis on key needs that everyone is pursuing (Ingham, Ingham & Afonso, 2016). The world is changing at breakneck speed, especially with the convergence of accounting and technology to produce useful and life-changing innovations (Hayat, 2017). It implies that life-long learning is becoming increasingly important, not only as a key organizing principle for all forms of education and learning, but also as a mandatory requirement for all (Hanemann, 2015). That is, life-long learning places a strong emphasis on improving one's own well-being while also providing skills for the community.

The Marzano framework of life-long learning includes five standards. To begin, complex thinking standards are divided into two categories: effectively using a variety of complex reasoning strategies and effectively translating issues and situations into manageable tasks with a clear purpose. Secondly, the information processing standard is divided into four categories: effectively uses a variety of information gathering techniques and information resources, effectively interprets and synthesizes information, accurately assesses information value, and recognizes where and how projects would benefit from additional information. Third, effective communication standards are divided into five categories: expresses ideas clearly, effectively communicates with diverse audiences, effectively communicates in a variety of ways, effectively communicates for a variety of purposes, and produces quality products. Fourth, the cooperation or collaboration standard develops four categories: works toward group goals, uses interpersonal skills effectively, contributes to group maintenance, and effectively performs a variety of roles. The final standard consists of three types of mental habits: self-regulation, critical thinking, and creative thinking (Marzano, Pickering & McTighe, 1994).

Theoretical Framework

Literature suggests various theories, philosophies and models that explains the adult learning process for effective teaching and learning. These include Kolb`s Learning Cycle and andragogy or adult learning theory. This section explains the theoretical framework of this study.

Kolb`s Learning Cycle Theory

Kolb`s learning cycle is a theory that provides a practical learning framework. The model is influenced by Dewey's (1938) educational theories and a version of Piaget's (1972) theory of cognitive development. Kolb (1984:41) defines learning as "the process by which knowledge is created through the transformation of experience." The theory is divided into four stages that create a learning cycle: concrete experiences, where learning experiences occur, reflective observation, when the individual actively reflects on the experience, abstract conceptualization, when the individual is presented with a theory or a new concept, and active

experimentation, when the individual attempts to test the theory (Kolb, 1984). Kolb contends that this cycle of experiential learning can be applied to all learners. The model also emphasizes the reflection aspect of this process. Reflection is thought to be necessary for the observation process in evaluating and recalling the learning experience.

Adult Learning Theory (Andragogy)

The German editor Alexander Kapp coined the term "adult learning theory," also known as andragogy, in 1833 to describe Plato's learning theory that learning continues into adulthood (Blackley & Sheffield, 2015; Knowles et al., 2015). Kapp (1833) wrote Plato's Educational Ideas about the values of education, which included components such as lifelong learning with character education, life experiences, and self-reflection (Chen, 2014). Lindeman visited Germany in 1926 and brought back the concept of andragogy (Henschke, 2016). Lindeman was concerned about social changes and believed that uneducated people were easily influenced, according to Rachel (2015). Lindeman argued that an educated population or society was less likely to be swayed by messages of hatred and fear from powerful people (Rachal, 2015). Lindeman's contribution to American adult education literature was an essay titled *The Meaning of Education* (Rachal, 2015). Through adult education, Lindeman's goal in the essay was to educate citizens in order to preserve the government and begin social change (Rachal, 2015). According to Knowles et al. (2015), Lindeman was the first to introduce andragogy as a method of teaching adults in the United States.

Lindeman's work in adult education theories influenced Knowles' work in the 1960s, sparking renewed interest in the European concept of andragogy (Knowles et al., 2015; Merriam, 2017). Knowles prioritized learner characteristics and learning processes over content design and research in adult education and andragogy (Henschke, 2016; Merriam, 2017). Knowles et al (2015) identified five fundamental andragogical assumptions. These assumptions state that adults are self-directed learners with a desire to learn, adults possess a wealth of experience to bring to the learning situation, they are eager to learn, they prefer problem-centered learning, and are best motivated internal variables in accordance with andragogy principles. Andragogy was thus well established in the United States by the publication of Knowles' book, *The Modern Practice of Adult Education: Andragogy vs. Pedagogy*, in 1970 (Henschke, 2016; Merriam, 2017).

On another note, Rachal (2015) discovered that Knowles' emphasis in adult education was on individual change rather than Lindeman's larger goal of social change. Criticism of andragogy focused on two issues: generalizations of andragogy for all adults and the changing role of the educator (Ekoto & Gaikwad, 2015; Merriam & Bierema, 2014). In view of that, Cochran & Brown (2016) and Ekoto & Gaikwad, 2015) highlights that because clear explanations of how andragogy affects learning are lacking in the education world, debates over andragogy as learner-centered and pedagogy as teacher-centered continue to exists. Thus Knowles et al (2015) indicates that adults learn differently than children, hence argued for andragogy over pedagogy by contrasting how each teaching method addressed the fundamental assumptions. Pedagogy in this instance places the teacher in charge of the education of children (Cochran & Brown, 2016; Knowles et al., 2015) and one of the fundamental principles of it is the assumption that the learner has little or no experience, and the teacher takes responsibility for and evaluates the learning (Knowles et al., 2015). Children in this case are viewed as analytical learners due to their limited experience (Knowles et al., 2015). However, the instructor is transformed into a facilitator of learning rather than a guide for the learning process in andragogy (Knowles et al., 2015; Merriam & Bierema, 2014). Thus, adult learners are encouraged to use andragogy methods to self-reflect or evaluate their previous experiences and learning (Cochran & Brown, 2016; Knowles et al., 2015). The current problem is that although adult education has used andragogy for over four decades, it is still not widely adopted in higher education (Caruth, 2014).

Effective Teaching Methods to Support Adults for Lifelong learning

Various methods for supporting adults' lifelong learning have been proposed in the literature. Jarvis (2018) and Rubenson (2019) identified the following overarching concepts that govern good teaching methods for adult learners:

1. *Educators must only facilitate learning.*
   They should create a learning environment and guide students through the learning process, but they should not dictate the outcome of the experience.
   "They may seek to create an awareness of a specific learning need in the students; to confront students with a problem requiring a solution; to provide the students with an experience and encourage reflection on it" (Jarvis, 2018).

2. *Teachers should encourage students' autonomy and independence.*
   This refers to the freedom to select one's own pace, method, content, or assessment. For example, students "should be free to work at their own pace, choose to study particular aspects of a course, adopt whatever learning style suits them best, and be free to choose what they learn" (Jarvis, 2018).

3. *Teaching should empower learners.*
   As a corollary to the need to provide autonomy and independence, teachers should share power and decision-making roles with their students. Educators should "Avoid being in the position of providing correct answers,". They should ensure that all resources are available to all students, include self-evaluation in graded courses, involve students in learning environment management, and be open and explicit about what is happening and why (Rubenson, 2011: 57).

Challenges in Lifelong Learning

Obstacles to adult lifelong learning vary depending on the individual (Bahçelerli, 2018). These impediments appear in various forms throughout the lifelong learning process. Some of the difficulties encountered in lifelong learning processes are economic, personal, social, basic, technological, access, and motivational (Sinel, 2011). Bahcelerli (2018) categorizes the factors that prevent adults from continuing their education into three broad categories; (1) Situational -prevents the occurrence of any situation or circumstance; (2) Institutional practices that prevent or discourage individual participation in organized learning activities; (3) Dispositional -the impediment associated with an individual's attitude, behavior, and perception of his or her continuing learning life. Additionally, Longworth (2003) summarized the barriers to lifelong learning as mental barriers, financial barriers, access barriers, learning design barriers, and information barriers.

RESEARCH METHODOLOGY

A descriptive research design was used in the study, which enables events to be recorded, described, interpreted, analyzed and compared (Kumar, 2011) as is intended in this study. The descriptive design was in the form of a survey study of a state university's accounting students. A sample size of 110 students selected from 152 level four registered accounting students. Another sample of 11 accounting lecturers randomly selected from 21 accounting lecturers in the accounting sciences department was also used. Students used the Principles of Adult Learning Scale, an existing self-report instrument (by Conte, 2004), to identify elements or strategies of adult learning experiences in the classroom. The second instrument was a question for lecturers to identify challenges faced in implementing adult learning strategies.

Data was analysed in the form of thematic inferential statistics as well as narratives deduced from follow up interviews. Students' survey responses to the Principles of Adult Learning Scale were analyzed on a 6-point Likert scale by measures of the frequency with which the instructor used a teaching-learning principle. Response options on the 44-item survey

were calculated with point values of Always = 0, Almost Always = 1, Often = 2, Seldom = 3, Almost Never = 4, and Never = 5 (Conti, 2004). The Principles of Adult Learning Scale used is available upon request.

ANALYSIS OF FINDINGS

The survey instrument was divided into seven factors relating to the lecturer's teaching style for quantitative data analysis: learner-centered activities, personalizing instruction, relating to experience, assessing student needs, climate building, participation in the learning process, and personal development flexibility. The mean and standard deviation of each of the seven factor groups were calculated and compared to the values determined in the original study by Conti (2004). The Adapted Principles of Adult Learning Scale was used to collect data from students about their classroom experiences in order to identify the adult learning principles reported by students. The data obtained from the Principles of Adult Learning Scale was analyzed using descriptive statistics.

The self-report instrument was formatted with the same six response type of Likert-scale for the 44 items. Always, Almost always, Often, Seldom, Almost never, and Never were the Likert-scale responses. For scoring and analysis, each response was assigned a numerical value. The Principles of Adult Learning Scale had 24 items identified as positive questions and 20 items identified as negative questions, according to the developer (Conti, 2004). 1, 3, 5, 8, 10, 14, 15, 17, 18, 20, 22, 23, 24, 25, 28, 31, 32, 34, 35, 36, 39, 42, 43, and 44 were the correct answers (Conti, 2004). The following positive questions were scored on a Likert scale: 5 = Always, 4 = Almost Always, 3 = Frequently, 2 = Seldom, 1 = Almost Never, and 0 = Never (Conti, 2004). According to Conte (2004), the negative questions are 2, 4, 6, 7, 9, 11, 12, 13, 16, 19, 21, 26, 27, 29, 30, 33, 37, 38, 40, and 41 were the negative questions (Conti, 2004). Negative questions on the Likert scale were scored as follows: 0 means always, 1 means almost always, 2 means frequently, 3 means rarely, 4 means almost never, and 5 means never (Conti, 2004). Items that are skipped or missed are given a neutral value of 2.5.

The 44 item scores were used to calculate an overall score, which can be compared to the Principles of Adult Learning Scale survey normed score to indicate the instructor's overall teaching style. The survey results include an overall score as well as individual scores for each of the seven factors. The survey's overall score is calculated by adding the scores for each of the seven factors. Scores on the Principles of Adult Learning Scale can range from 0 to 220. A more teacher-centered approach is indicated by overall scores ranging from 0 to 145 (Conti, 2004). Scores ranging from 146 to 220 indicate a more collaborative learner-centered approach (Conti, 2004). The mean score on the Principles of Adult Learning Scale is 146, with a standard deviation of 20 (Conti, 2004). The data and descriptive statistics for the survey responses were analyzed using the Google Forms app and Excel.

Analysis of Findings for Objective 1: To assesses life-long adult learning strategies being adopted by lecturers in the Department of Accounting Sciences

The purpose of *objective 1* was to assess the adequacy of adult learning strategies being used by lecturers` in the accounting sciences department for lifelong learning. Findings are presented using the six factors as identified by Conti (2004). The data for the overall scores of the students who completed the Adapted Principles of Adult Learning Scale (APALS) are shown in Figure 1 below.
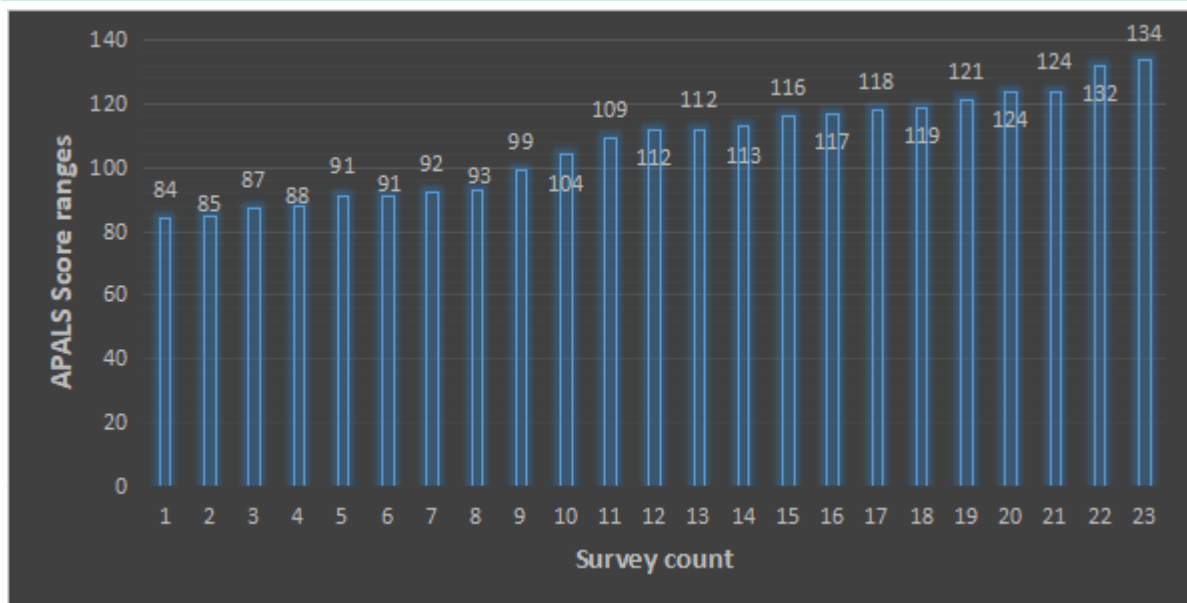
Figure 1: Overall Principles of Adult Learning Scale Score
Source: Authors' compilation

The distribution of students' overall scores on the Adapted Principles of Adult Learning Scale is depicted in Figure 1. The column numbers represent the range of the overall total student scores (n = 23) who completed the Adopted Principles of Adult Learning Scale, with a possible score range of 0-220 because 44 survey questions were administered, each with a possible highest score of 5, resulting in (44 questions x 5 points) 220 scores.

The data indicates that the overall student scores ranges between 84 and 134. The Adapted Principles of Adult Learning Scale (APALS) total mean score was 107.17, with a mode of 112. From the overall scores of the APALS, the standard deviation was 15.73 which is below the normed standard deviation of 20. Total scores between 0 and 145 indicate a "teacher-centered" teaching style, while scores between 146 and 220 indicate a "learner-centered" teaching style, according to Conti (2004) Adapted Principles of Adult Learning Scale Score. This therefore means that students reported their learning experiences in the classroom as being teacher-centred since 100% of the total score are below the average mean of 146 (see Figure 1 above). The total standard deviation of 15.73 is also below the normed average of 20 meaning the overall teaching style is teacher-centred. This also means that pedagogics teaching styles are mostly used in the learning process rather than adult learning styles in the accounting sciences department at the state university.

Analysis of teaching strategies by Conti (2004) six factors

The six factors from the Adapted Principles of Adult Learning scale were analyzed. These are: Factor 1: Learner-Centered Activities; Factor 2: Personalization of Instruction; and Factor 3: Experience-Related Activities. Factor 4 - Assessing the needs of the students Factor 5 is climate building; Factor 6 is learning process participation; and Factor 7 is flexibility for personal development.

Analysis of Factor 1: Leaner-Centered Activities

Factor 1 focuses on Learner-Centered Activities. It consists of 12 negative items. According to Conte (2004:80), the items for Factor 1 are related to "formal testing and comparing students to outside standards". Low scores indicate a teacher-centered style, whereas high scores indicate support for the collaborative mode and a learner-centered approach found in the Adult Education literature (Conti, 2004:80). With scores ranging from 0 to 60, the factor has a mean of 38 and a standard deviation of 8.3. (Byrd 2010; Conti, 2004: 91). Figure 2 below shows the distribution of Learner-Centered Activities.
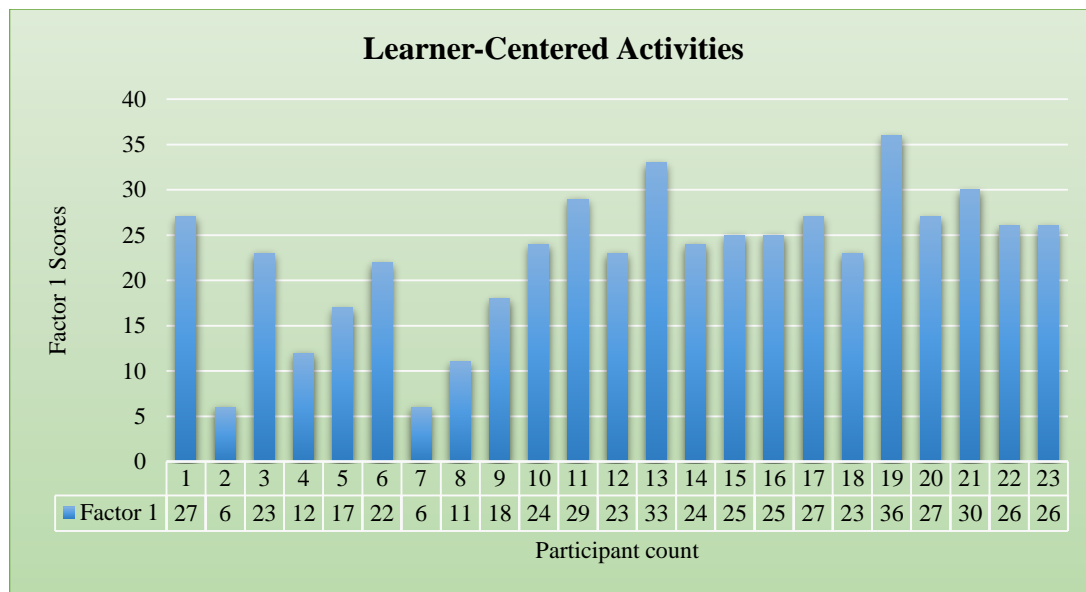
Figure 2: Factor 1: Learner-Centred Activities
Source: Primary data

Learner-centered activity scores ranged from 6 to 36, with a median of 24. There were multiple modes of 23 and 27 for the factor. The mean score was 22.6 with a 7.77 standard deviation, which is 1.86 standard deviations below the factor mean (38-22.6 = 15.4; 15.4/ 8.3 =1.86). Both the mean and standard deviation are below the Conti (2004) APALS normed scores. This means that lecturers in the accounting department at the state university mostly used teacher-centered teaching strategies which do not support collaborative mode and learner-centeredness. Among the reported learner-centered activities, 35% of the learners acknowledged that the lecturers` *Almost Always* plan educational objectives with the learners. Notable responses showed that lecturers *Often* (49%), *Always* (13%) and *Almost Always* (13%) use one teaching method for adult learners. Responses also revealed that lecturers almost always (35%) and always (49%) use written in-class tests to assess academic growth rather than to suggest new learning directions. Learners further indicated that tests are the chief methods of evaluating students by lecturers confirmed with 43% and 39% stating *Almost Always* and *Always* respectively. However, 35% and 26% indicated that lecturers *Almost Never* and *Never* used educational materials originally designed for elementary and secondary schools.

Analysis of Factor 2: Personalising Instruction

Factor 2 focuses on personalising instruction. It consists of six positive and three negative items. The elements of Factor 2 are about doing a variety of things that tailor learning to the specific needs of each learner (Conti, 2004: 80). The mean of the factor is 31 and the standard deviation is 6.8. Scores can range between 0 and 45. Figure 3 below shows student responses on personalizing instruction.
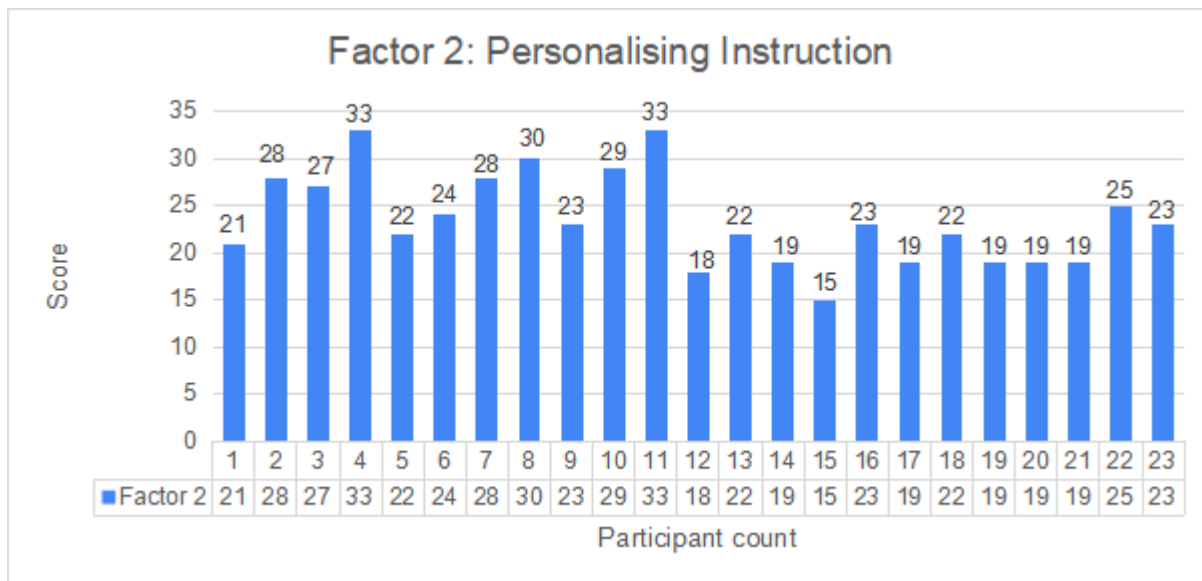
Figure 3: Factor 2: Personalising Instrument
Source: Authors` compilation

As shown in Figure 3 above, the scores for personalizing instruction range from 21 to 33. The median and mode for the group were 23 and 19, respectively. The mean score for the Principles of Adult Learning scale was 23.09, with a standard deviation of 4.43, which was lower than the normed mean of 31 and standard deviation of 6.8. This means that the students' mean for Factor 2, Personalising Instruction was 1.16 lower than the normed mean (31-23.09 = 7.91/6.8 = 1.16).

Notable responses from Factor 2: Personalising Instruction indicated 49% *(Often),* 22% *(Always)* and 22% *(Almost Always),* that learners were allowed more time to complete assignments when needed. Learners also indicated that lecturing was the mostly used method for presenting subject material to adult learners with 43% indicating *Often*, 30% highlighting *Always*, 22% showing *Almost Always* and only 5% indicating *Seldom* use. Results showed that different teaching techniques were *Seldom* (35%) used while 3% reported *Often* use of different teaching techniques. Learners also reported that all students in the class are *Often* (43%) and *Always* (22%) given the same assignment on a given topic. Same material was also being used for different students in the learning process.

Analysis of Factor 3: Relating to Experience

Factor 3, Relating to Experience, included learning behaviors that assess students' prior experiences and organize learning experiences based on the types of everyday life challenges they face (Conti, 2004). Factor 3 consists of six positive items with scores ranging from 0 to 30 (see Figure 4 below). The calculated mean for Factor 3 is 21 with a standard deviation of 4.9(Conti, 2004). The median student score for this study is 15 with multiple modes of 11, 12, and 14. The mean student score in Factor 3 was 18.35 with a standard deviation of 6.86, which was 0.54 lower than the Factor 3 normed mean of 21 with a standard deviation of 4.9 (21 - 18.35 = 2.65 / 4.9 = 0.54).
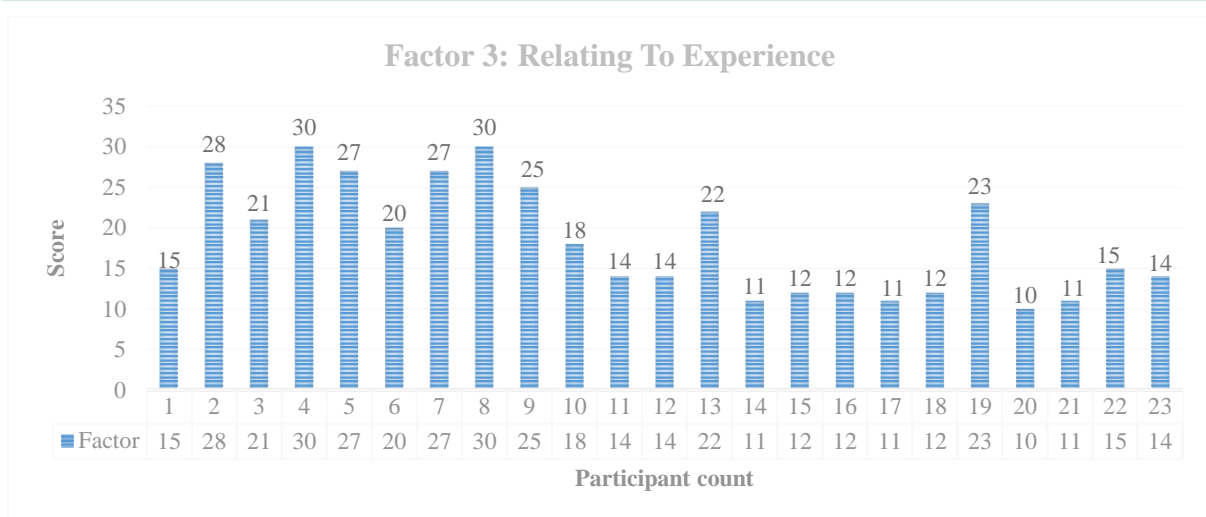
Figure 4: Relating to Experience
Source: Authors' compilation

Relating to experience, 43% of the students indicated that the course learning activities *Seldom* took into account their prior experiences, 26% indicated *Always*, 17% showed *Often,* 9% indicated *Almost Always* and 5% indicated never taking learners` prior experiences in the learning process. It is also worth noting that during course activities, 43% of students reported that planned activities *Seldom* encourage each student's growth from dependence on others to greater independence, while 26% reported that planned activities *Always* encourage student growth. On the other hand, 35% reported *Often*, 30% *(Seldom),* 22% *(Almost Always)* and 13% *(Always)* receiving help relating to new learnings to their prior experiences. Similarly, problems of everyday living being used as part of the course were reported as follows; 43% (seldom), 30% (Always), 17% (Almost Always) and 5% (Often & Never).

Analysis of Factor 4: Assessing student Needs

Factor 4 focuses on assessing student needs and consists of four positive items. The process of determining what a student wants and needs to know is known as assessing student needs (Conti, 2004). Scores for Factor 4 range from 0 to 20. (Conti, 2004). Student scores for Factor 4 are shown in Figure 5 below. Factor 4 student score distributions varied from 5 to 19 as shown in Figure 4 above, with a median of 10 and mode of 8. Factor 4 had a mean of 11.09 and a standard deviation of 4.27, which was 0.81 lower than the normed mean of 14 and standard deviation of 3.6 (14 - 11.09 = 2.91 / 3.6 = 0.81).
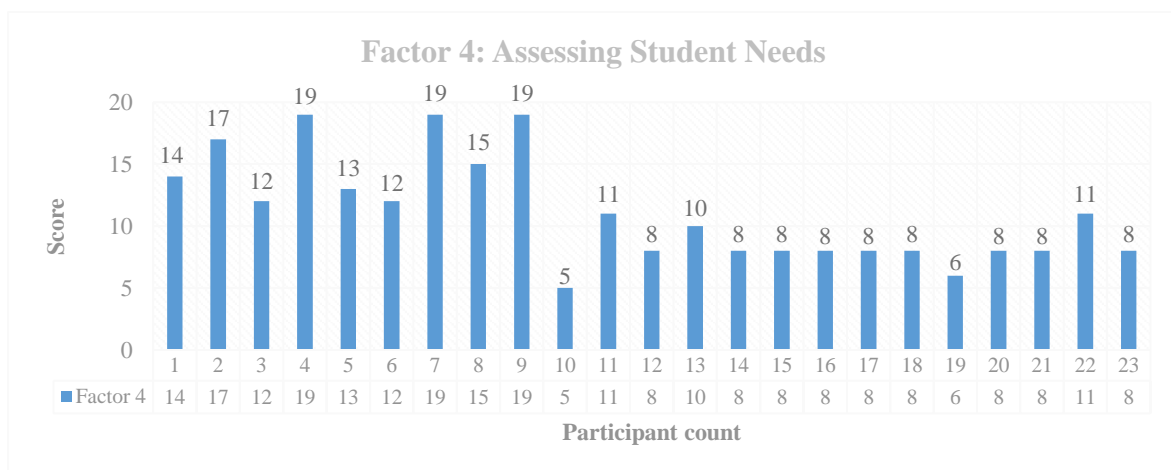

Figure 5: Assessing student needs
Source: Authors' compilation

Significant student responses from Factor 4 revealed that 48% *(Seldom),* 26% *(almost always)*, 13% *(always),* and 9% *(often)* received assistance in determining the gaps between their goals and current level of performance. Learners also indicated that most lecturers do not provide informal counselling to students, with 52% confirming *Seldom* and 17% *Often* while 9% indicated *Never* receiving counselling from Lecturers. Similarly, 43% reported *Seldom*, 13% *Always*, 13% *Often*, 13% *Almost Never*, and 9% *Almost Always* had individual conferences or meetings with their lecturers to help them identify their educational needs. In terms of assisting students in developing short- and long-term goals, respondents indicated that 43% *Seldom* received assistance, 30% *Always*, 13% *Often*, 9% *Almost Always*, and 5% *Almost Never* received assistance.

Analysis of Factor 5: Climate Building

Climate Building is a factor that describes the classroom environment as encouraging and positive (Conti, 2004). Factor 5 includes four items with scores ranging from 0 to 20. The student's total scores on the Principles of Adult Learning Scale for Factor 5 ranged from 10 to 20, with 14 as the median and 11 as the mode (see Figure 6 below).
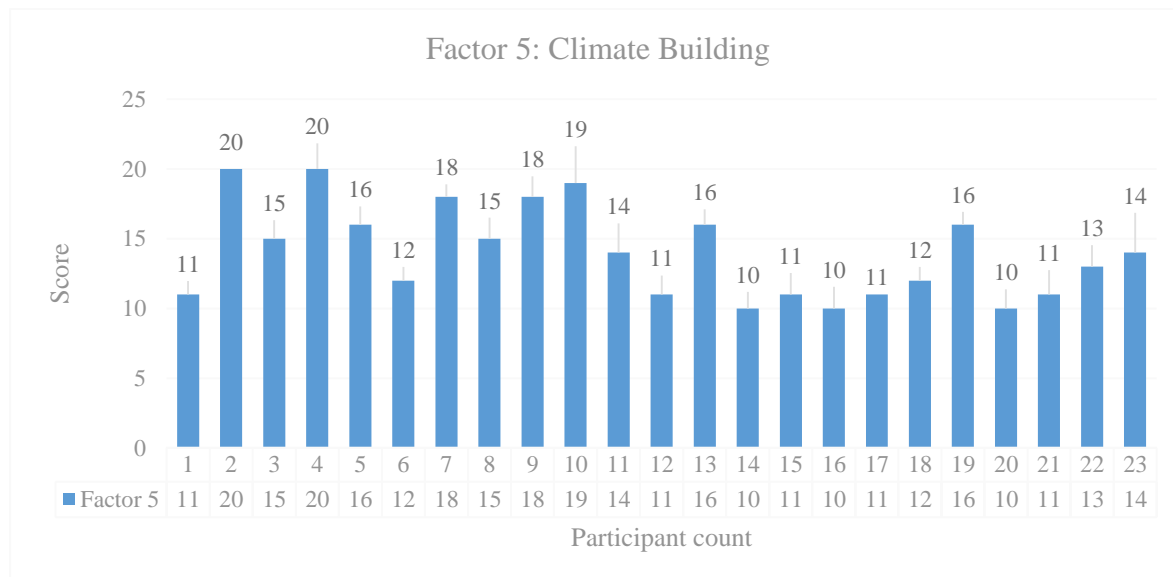

Figure 6: Climate building
Source: Authors` compilation

The students' mean for Factor 5 was 14.04, which was 0.65 lower than the normed mean of 16, and the standard deviation was 3.34 (16 - 14.04 = 1.96/3.0 = 0.65). Factor 5 indicated that group discussions were encouraged among students indicated by 39% reporting *Almost Always*, 35% showing *Always*, 22% indicating *Often* while only 4% suggesting *Seldom.* However, 48% of the learners stated that most adults' competencies were *Seldom* used to achieve educational objectives, while 22% stated that their competencies were *Often* used to achieve educational objectives. During the learning process, 39% *Almost Always* and 35% *Always* agreed that errors are a natural part of the learning process. Results from the learners also indicated a 30% *Always*, 26% *Seldom*, 17% *Often*, 13% *Almost Always* students being allowed to take breaks during class.

Analysis of Factor 6: Participation in the Learning Process

Factor 6, Participation in the Learning Process, refers to students identifying problems to solve and participating in the selection of class subject topics (Conti, 2004). Factor 6 is made up of four positive items, each with a score ranging from 0 to 20 (see Figure 7).
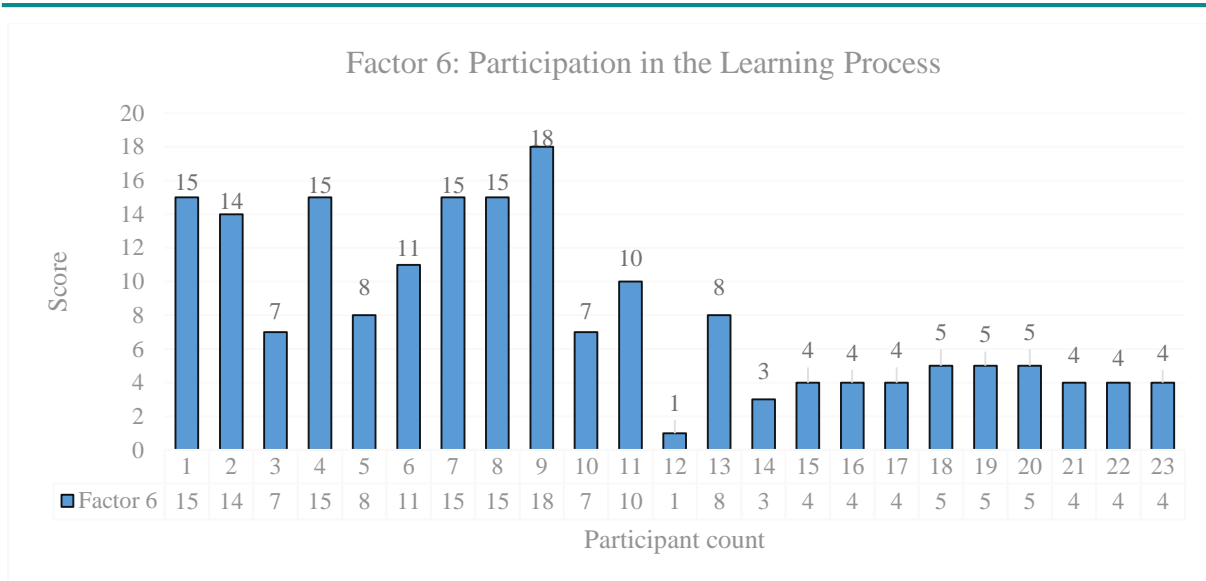
Figure 7: Participation in the learning process
Source: Authors' compilation

Student scores on Factor 6 ranged from 1 to 18, with a median of 7 and a mode of 4. The normed factor mean of 13 was 1.4 lower than the student mean of 8.09, with a standard deviation of 3.5 (13 - 8.09 = 4.91 /3.5 = 1.4).

Significant responses from Factor 5 revealed that 61% of learners *Never* participate in developing criteria for evaluating performance in class, while only 4% participate. 30% of the students also indicated that the classroom is *Always* set up so that students can interact easily, while 22% indicated that the classroom is *Seldom* set up for easy interaction. Results also highlights that 43% of the learners confirmed that they *Never* and 22% *Almost Never* participate in making decisions about the topics that will be covered in class. Similarly, 35% indicated that they *Seldom* identify their own problems that need to be solved, while 30% indicated their problems *Always* get solved during the learning process.

Analysis of Factor 7: Flexibility for Personal Development

Factor 7, Flexibility for Personal Development, refers to the facilitator's classroom adaptations to meet the needs of the students (Conti, 2004). Factor 7 is made up of five negative items, each with a score ranging from 0 to 25 (see Figure 8).
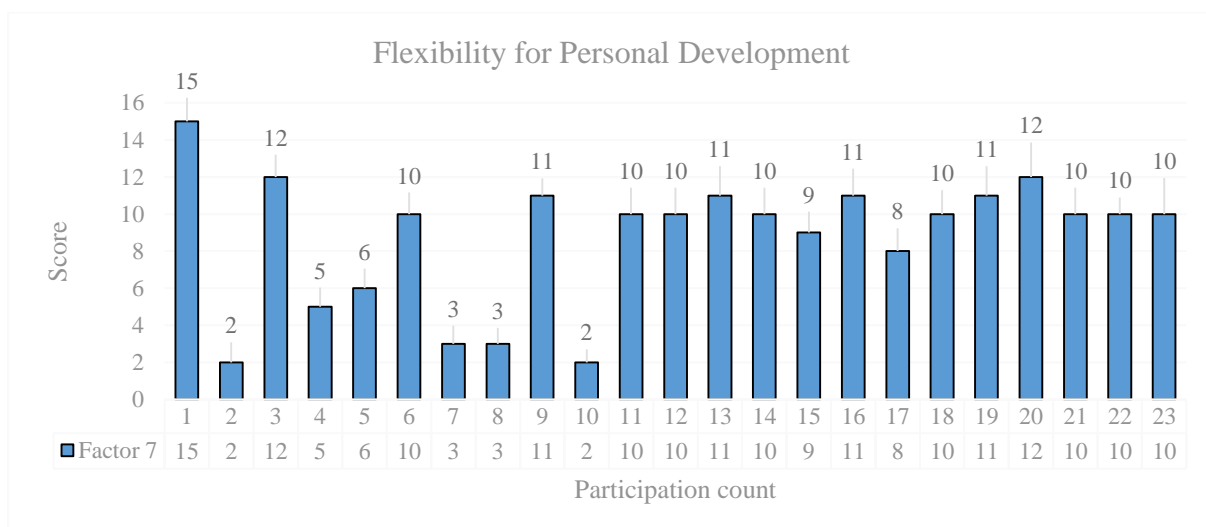

Figure 8: Flexibility for personal development
Source: Authors' compilation

Student scores on Factor 7 ranged from 2 to 15, with a median and mode of 10. The student mean was 8.74 with a standard deviation of 3.52, which was 1.09 lower than the normed factor mean of 13 with a standard deviation of 3.9 (13 - 8.74 = 4.26 / 3.9 =1.09).

Responses for Factor 7 showed that 61% of the learners agreed that lecturers *Often* provide knowledge rather than serve as resource persons. According to the survey responses, 43% *(Always)* and 35% *(Almost Always)* of lecturers adhere to the instructional objectives that they wrote at the beginning of the semester. A remarkable 30% response rate also revealed that most lecturers *Always* maintained a well-disciplined classroom to reduce interference to learning, whereas 30% *Seldom* do. On the other hand, 39% of the learners reported that lecturers *Often* avoid, and 22% *Seldom* avoids discussion of controversial subjects that involve value judgements.

Analysis of Findings for Objective 2: To ascertain challenges in implementing life-long adult learning strategies

The focus of objective 2 was to ascertain the challenges that lecturers may face in implementing lifelong adult learning strategies during the teaching process. This objective was achieved by carrying out a survey questionnaire (closed and open-ended) specifically for lecturers in the accounting sciences department. Responses were presented as narratives.

The major challenges in implementing adult learning strategies identified from respondents included lack of adult learning techniques know-how, technological and infrastructural challenges, large class sizes and resource constrains. The main challenge identified by all lecturers was the issue of large class sizes. Almost 70% of the lecturers concurred that it is difficult to implement adult learning strategies when a class is more than 150 students. In this regard, one respondent clarified that meeting the individual learning needs of learners in a class of more than 150 students is difficult for a lecturer. Another responded added that lecturer's find it tiresome to evaluate student performance using various criteria in very large class as compared to classes with smaller numbers. Horning (2007) also indicated that engagement with learners in smaller classes is increased compared to larger classes thereby improving academic performance through continuous interaction with the instructor. Previous studies indicate that smaller class sizes can help students develop greater adaptability to intellectual and educational challenges (Bedard & Kuhn, 2008; Dee & West, 2011).

Responses also indicated that 40% of the lecturers faced adult learning teaching techniques know-how. This could also explain why some lecturers were identified to be mainly using one method of teaching as shown by student responses. As indicated by Rasmussen (2015), various teaching methods such as making use of case studies, simulations, games, problem solving and quizzes among others that can be used rather than lecturing method only for effective teaching. Mystakidis, Berki & Valtanen (2019b) also indicated that meaningful learning is associated with various learning approaches such as active learning, constructive learning and cooperative learning so that learners are fully involved in the learning process. Respondents added that the institution should also provide sufficient resources that enable efficient and effective teaching such as projectors to aid visuals and enough computers for practical information technology lessons.

Analysis of Findings for Objective 3: To come up with policy recommendations for effective lifelong adult learning

According to previous literature studies, there is no universal strategy for implementing lifelong learning in every country (Yazici, 2015). This means that each country must develop its own methods of implementing effective lifelong adult learning. Bengtsson (2013), on the other hand, suggests four common steps to take in this regard:

- Governments, social partners, civic society, and the education and research communities should work closely together;
- All relevant stakeholders should agree on a common roadmap; and
- Adults, particularly those with low qualifications, should be provided with adequate Basic Skills Training (BST).
- A set of indicators to track lifelong learning activities should be developed.
  As a starting point, the ILO (2019) suggests the following as a basic model:

a) Creation of a framework for lifelong learning. To accomplish this, close collaboration among stakeholders is required.

b) Creating a strategy for recognizing prior experiences that can be used during the learning process.

c) Creation of a system to track the activities of lifelong learning: A quality assurance office should be established to collect data from all parts of the system and make recommendations for future development of lifelong learning implementation.

Over and above the suggested model, the institution can make priorities and policies set with regards to monitoring and evaluation of lifelong learning activities, lifelong learning guidance, emphasis in practical-oriented learning to real life situations, establishing average class sizes for each programme, continuous education by academic staff such as workshops and trainings relating to adult teaching strategies and enrolment for postgraduate diploma in tertiary education. This will go a long way in enabling an effective lifelong adult learning in the accounting field.

CONCLUSIONS

Basing on the research findings of the study, it can generally be concluded that the department of accounting sciences lecturers at the state university were mostly using teacher-centered approaches to adult teaching as compared to learner-centered approaches of adult teaching for lifelong learning. The major impediment to implementing adult learning strategies in the department was the large class sizes and lack of basic adult learning techniques know-how by some lecturers. The department might not have standing policies that should be used by lecturers as a guide for adult learning for lifelong learning.

RECOMMENDATIONS

Guided by the research findings and conclusions thereof, the following recommendations are made;

- The department should organize training or workshops for lecturers on adult learning strategies for teaching
- All lecturers without teaching qualifications in the department should be encouraged to enroll for postgraduate studies in higher and tertiary education to get equipped with adult learning knowledge.
- Class sizes for students can be reduced to reasonable sizes and this hence calls for additional academic staff in the department. The department chairperson can liase with the Faculty Dean in this regard for further deliberations with the University Quality Assurance department as well as the Pro-Vice Chancellor Academics for recruitment and intake modalities.
- A policy framework relating to adult learning strategies should be in place to guide academic staff in the department for teaching strategies.

AREAS FOR FURTHER STUDIES

The study was a survey by learners in the accounting sciences department to assess the adequacy of adult learning strategies for lifelong learning. Further studies can be carried out with both students and academic staff so as to compare the results. Further studies can also be conducted with other universities in Zimbabwe and compare the outcome of the findings with this study for a more generalized viewpoint of adult learning strategies being used in institutions of higher learning in Zimbabwe.

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