EDU007

Independent Research and Deep Learning of Accounting Concepts: Students' View

Fortune Ganda
School of Accountancy
University of Limpopo
Fochi555@yahoo.com

Collins C Ngwakwe School of Accountancy University of Limpopo
collins.ngwakwe@ul.ac.za

Cosmas M Ambe
School of Accountancy
University of Limpopo
cosmas.ambe@ul.ac.za

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Abstract

This article examines students'the impactviewofindependenton research on students' deep learningThearticleofthus drawsaccountingfrom co questionnaire administered on final year Bachelor of Accounting Science

(Chartered Accountant stream) and Bachelor of Commerce Accounting (Commerce Stream) students at the University of Limpopo, South Africa.

Findings from the Chi-square analysis of that,students'from re students' perspective, independentesassist resea in the deep approach to learning of accounting concepts. Furthermore, the

majority of the students are of the view that lecturers should encourage them to engage in independent research and/or study of concepts, which, according them, assists them to better internalise these concepts. This article thus

concludes that, given students' view regarding th research, and the growing importance being attached to teaching and learning as

an essential service in higher educational institutions, time has come to intensify students' independentonaccountingconceptsresearchasvitalcomponent of teaching and learning; and to gradually shift away from the common method of Teacher-Centred learning. Doing this would foster the moulding of future graduates who will have the potential to steer and manage the complex interactions of social and economic issues to ensure a sustainable knowledge economy.

Keywords: Independent learning; Deep approach to learning; Accounting concepts; Learning methods.

Introduction

Old teaching and learning techniques appear to revolve more around class room oriented teaching and thus more teachers centred. But experts have criticized Teacher Centred approach in learning as being obstructive to students'lifelongacademic development. In response to on-going efforts by the government to improve teaching and learning, this paper attempts to examine the effect of independe approach to learning of accounting concepts.

Old methods of imparting accountancy knowledge –which may be described as Teacher Centred - does not seem to be sustainable in terms of making the concepts being learnt to be deep seated in students' wealth of discipli facts and curious inquisition. It seems to remove a sense of reasoning, independent thought and self-confidence. For instance, we experience with the frequency of what is termed student consultation. Indeed, we feel dismayed to behold students consult on trivial matters that demand self-research and/or study –to find out, evaluate and thus internalise facts that previously seemed nebulous to learners. The seemingly straitjacket approach to teaching and learning, in which the teacher does it all for the student, places the student in a mere receptive position and thus involuntarily forced to memorise so as to pass examinations. But there is more to passing examinations; a narrowly constituted method of learning based on what the teacher says and gives out is unsustainable for moulding a future potential problem-solving manager needed to sustainably steer and manage a complex set of social economic issues that confront modern society.

Thus the problem that motivates this study draws from both prior criticism of Teacher-Centred learning, and from the researchers' personal ex overdependence on lecturers for learning activities; which thus seem to be affecting their level of personal critical reasoning and independent learning ability.

Therefore, the paper seeks to answer the question –does students' indepen study of accounting concepts enhance deep learning of accounting concepts. The objective of this article thus is to investigate if independent research or study does enhance students'deep understanding of accounting concepts.

This paper is important considering the importance of education toward social and economic development, and the current national government stance in declaring education as an essential service if desired development must be achieved. This is understandable given the important role of learning and thus knowledge in economic growth and development. Given therefore the current emphasis on improving teaching and learning in the higher educational institutions, time has come to emphasise independent research or study as one vital learning approach (aside from class teaching) in developing students' knowl

The article is organised as follows: the next section discusses the linkage between independent research andThisis followedstudents'byadiscussion oflearningthe deep learning theory, succeeded by a section that highlights how independent research or study enhances deep approaches to learning. Following this is research methodology and data analysis. The final section presents drawn conclusions.

Independent Research and Students' Learning

Independent research and/or learning is a teaching and learning approach that enables a student to have a certain degree of autonomy from the teacher in thinking and researching concepts so as to enhance self-understanding. Thus, it empowers students to take control of their academic activities, stimulate them to address personal learning needs, broaden the scope of study outside the classroom and reduce dependence on academic staff and peers (Lamb, 2004). Research conducted on the Moroccan higher education students indicates independent learning as an instrument that develops human mental capacity to be very critical and highly inquisitive. It has also been associated to cause students to be able to manage everyday life problems (Najoua et al., 2005). By motivating students to thirst for knowledge, self-research demands an individual to understand where, when and how to study, so that the students can be motivated, comprehend new concepts and exercise their academic skills (Essential Study Skills, 2007). In this manner, the student is stimulated and engaged into active learning.

For this reason, referring to a study completed in Singaporean schools, independent learning motivates the student to assume active duty in their learning activities and allows them to generate positive communication as well as understand abilities that are vital for educational

practices (Shyh et al., 2004). Consequently, when this takes place, the learner's capacity will be challenged. Therefore, it supports students by sharpening their skill base,

encourage them to acquire high inspiration levels, consolidate knowledge gained in the classroom, generates learner discipline and can even allow parents the opportunity to assess and evaluate the child'scademicprogress a(CTTC, 2013).

In light of this view, learners are given the room and freedom to develop responsibility and accountability towards their educational work. Noticeably, self-study propels students to self-pace their learning process, exercise their best thinking and improve individual time management (Colorado University, 2013). And also, findings obtained from surveyed learners explain that they enjoy independent learning processes and the technique is very effective since students look for the required information on their own (Dziewulski & Childs, 2012). Thus, independent learning removes the burden on teaching staff when they find it difficult to apply instructor-centred approaches (Arkoudis & Love, 2008). An insight into these ideas brings out high demands of what the learner is expected to personally bring forth academically. Hence, it requires individual organisation, independent supervision, positive understanding on prior knowledge and the capability and willingness to study during free time (Jones, 2013). It may depict a scenario where increased burden on the student in their learning processes have been added, but research has shown self-research usability even on small children.

That being so, surveys conducted on children aged 3-5 years prove that significant possibilities exist in expanding their self-research capabilities (Anderson et al., 2003). In addition, results on a research done in a UK college for 16-19 year old students demonstrates that independent learning promotes students to be highly accountable for their own academic progression and the library was identified to be the most suitable place to achieve the most pleasing results (Broad, 2006). Such a practice assists students to build positive educational habits that allow them to withstand challenges associated with higher levels of education in the future. To that end, analysis furnished on students in a UK institution confirmed that self-study is more successful if it is integrated within the course outline and it is important as it prepares them for higher levels of academic progression (Hughes, 2012). In the same country, as observed from Radiography students at the St Martins college, independent learning develops students into persons who are highly adaptable, self-motivated and can progress themselves even higher concerning their level of education attainment (Marshall,

2008). The advent of computerised technology has enormously supported global adoption of self-research learning approaches.

Necessarily, studies completed in a UK university proves that computer-learning methods assist students to become independent learners as they are empowered to prepare their own learning material proficiently (Dewhurst et al., 2000). As a result, the use of technology represents one of the fundamental methods by which independent learning can be enhanced (Louis, 2003). In English, e-learning packages promote self-research, which in turn boosts advancement regarding achieved language skills, enable students to carry out their own personal self-assessment and it reinforce taught concepts (Denemarková & Gálová, 2012). Moreover, the use of publisher-supplied software frameworks, such as WileyPLUS in student independent learning, helps them to achieve confidence in their learning process. It also assists the learner to master technical problems and it incorporates textbook-use towards formulated learning procedures, which is vital in developing future curriculum plans (Blount & McNeill, 2011). Accordingly, e-learning material that permits the learner to plan their objectives and decision making of artefacts by employing technology, assists them to monitor their progression in the learning process and allows them to change and correct their strategies for the betterment of future studies (Chau & Cheng, 2010).

Self-study has also been associated with helping students to change their personality for the better. For that reason, it mainly focuses on how students utilise their abilities, resources and instruments, which create individual plus aesthetic advancement, by driving them to love education again (Carmichael, 2007). By encouraging the students to appreciate academia, self-research also enables students to direct qualitative research, improve their adherence to ethical issues, consolidate individualised learning, as well as afford them healing in certain instances (Nash, 2011). Thus, through personal involvement and commitment on assigned tasks, learners are able to cope and manage stress since they are able to research on specific areas they consider to be the most difficult. Indeed, healing brings comfort, security and peace of mind that further motivate the learner to study more. In a separate study, as noted in Australian universities, unstructured assignments assume important roles in helping learners develop confident attitude towards self-study to grow as students, show greater standard involving self-efficacy and motivation (Johnson et al., 2007).

Clearly, when students are stirred and have self-confidence, they will try by all means to work hard so as to personally overcome educational problems that they are facing. In that case, investigations conducted in New Zealand hint that students independent learning is driven by the desire to reach goals they think are important in acquiring knowledge, as well as their sentiments concerning their shortcomings (Wallis, 2005). In this way, students are encouraged to visualise their aims and objectives; embark on appropriate channels to follow; implement their intentions; and meditate on and review their advancement, along with developing better plans after original goals have been achieved (QIA, 2008). Owing to complex educational frameworks and differences in student mental cognition, skills and performance, self-research is capable of providing appropriate remedies.

Remarkably, as discovered on accounting students in Australia, self-research is increasingly important in the education sector as large classes pose different challenges. These include diversity in levels of students'knowledge capacity and the various kinds of skills the students possess, all of which makes it difficult for them to learn in a single class environment (Luke & Hogarth, 2011). In addition, owing to large geographical distances involved, international students face difficulties in acquiring learning material, hence independent learning creates a better academic setting that reduces differences and complexities involved in growing educational systems (As-Saber et al., 2006). Independent learning also assists in outlining academic staff responsibilities and student expected performances.

On that note, student self-study implies academic staff to revise their goals and teaching methods' anddesign new curriculum along with assisting and drilling students. To the learner, it makes them develop research-aligned skills and improve academic performance as a result of the high autonomy they have received which minimises uncertainty (Petegem, 2008). Identifiably, the academic staff has authority of just being educational guides; assure students the opportunity to think carefully on issues pertaining to their learning procedure; and establish association involving study assistance and knowledge conveyance (Bernier et al., 2005). In the end, as learned in New Zealand, independent learning results in individual student objectives being ascertained, debated and supported; students are updated on current educative aspects; and it generates better practitioner skills in them (Belton & Scott, 1998).

Despite the involved advantages linked with student self-research in the learning process, it has also created associated negatives. For example, the use of the Internet in self research

can divert the learner's attention from the favourite sites on entertainment as well as social networking, which then reduces their

academic performance. It also exposes them to risks such as cyberstalking and sexual harassments (Coburn, 2008). Thus, the employment of computerised technology can also work to the detriment of already established educational settings. The use of the Internet may also increase a learner'sover-reliance on the computer, which results in them plagiarising assigned work - a form of academic cheating. In addition, computers, textbooks and other relevant educational material may be expensive to acquire. Supporting this argument, Head and Eisenberg (2009) state that challenges associated with student self-research include excessive information, some of which may not be necessary; problems in identifying suitable sources of data; textbooks and articles that may be outdated; as well as huge expenses in buying educational material unavailable within the institution. Independent learning also requires a highly flexible, organised and apt academic environment that may be very difficult to attain considering the dynamism and complexity of global learning frameworks. That being the case, dynamic plus responsive administration, ready to sustain revised academic growth matters and realise their accomplishment, is advisable (Ottewill, 2002).

Deep Approach to Learning Theory

Deep approach to learning fosters learners to become self-researchers, realise accountability towards their learning process and develop individualised abstract structures concerning acquired information and understanding (Entwistle, 1988). On the part of the student, it is enhanced when the learner has high interest in the subject matter, is determined and mentally prepared to assume the learning process and possess adequate prior knowledge. On the other hand, it is also championed if the teacher demonstrates individual interest on the concept, links new knowledge to basic foundation contexts learners have acquired, commits students in active learning process and shows compatibility and impartiality when appraising expected learning performances (Biggs,1999; and Entwistle,1988). On that account, the teacher is incapable of delivering deep approach to learning techniques but can generate environments in which it can develop (Grayling, 2011).

Necessarily, the teacher shows clear engagement pertaining to involved learning concepts, learning anticipations are briefly outlined plus teaching and evaluation techniques encourage students'active involvement in prescribed assignments and learners can decide their own preferential method and matter of study (Ramsden, 1992). Thus, the major difference

involving deep approach to learning as well as surface approach to learning relates to the evidence that surface approach to learning specialises in the preservation of facts whilst deep approach learning emphasizes greater understanding and establishing relationships (Draper, 2009). Subsequently, when learners are directed in ways that surpass surface learning, owing to better chances that increase their performance in the learning procedure, then they eventually secure favourable standards involving curiosity, comprehension and stimulation (Laird et al., 2008). Some circles have also supported deep approaches to learning'sfull potential, desirability and applicability in higher academic institutions.

Supporting this view, Collis and Biggs (1983) illustrate that universities support deep approach to learning methods more than related institutions of higher learning. Like this, deep approach to learning challenges the student more than it does the academic staff since dependence has been minimised. So, this learning method could be very hard for learners who are in lower educational systems to manage. Learners who adopt deep approach to learning methods are moved by the desire to discover concepts by themselves, hence they acquire knowledge by transforming. In the same vein, elements that promote deep approach to learning are, namely, the high extent of student and teacher commitment; significance and problems posed in the learning process; deployment of appropriate evaluating tools; as well as improved delivery of structures that utilise concept maps that establish interrelatedness of subject matter (Johnston,1998).

It follows that deep approaches to learning concentrates on primary definitions; specialises on key aspects and objectives; plus learners participate purposely as well as suitably. In this manner, students are optimistic, become gripped and feel challenged, hence academic questions given to the learner stimulate them to develop an investigative mentality (Harrison, 2004). Understandably, learners are made to reflect on prior knowledge and experience, identify essential learning goals, undertake principal roles involving course subject matter and carefully evaluate reasoning (McKimm, 2002). In the end, deep approach to learning results when learners find interrelationships with their course contexts, recognise their significance, as well as use them in their everyday life scenarios (DeLotell et al., 2010).

How Independent Research Enhance Deep Approach to Learning

The world is now constituted with complex academic settings, highly transforming learning and expertise patterns that require inculcating a culture which involves self-research in

students, capable of propelling them to deeper and appreciable levels of academic mastery (Gill & Halim, 2007). So, independent learning is about being inventive, employing dynamism, determining outcomes, as well as being experimental. All these essentials propel a student to attain a deeper understanding on learned material since it develops interest in them plus, they become motivated and are driven by passion to recognise ultimate outcomes (Palfreyman & Baba, 2010). Thus personal passion is very important in deep methods of learning.

Ideally, independent learning affords the learner to generate a research culture that equips them with essential individual and professional expertise, promote inquiry oriented learning and champion structured learning processes which eventually develop deep methods of understanding (RIEG, 2010). Referring to a study involving MATLAB course at the University of Sheffield, students were not advancing academically because they could not employ deep approaches of learning. Hence, a scheme involving programming that supports independent learning was instituted so that learners acquire personal confidence and adopt individual study techniques that enhance them to gain knowledge and competence, as well as commit those learning aspects to problem solving situations (Rossiter, 2010). Problem-solving based challenges make students to be more aligned with independent learning since they prioritise their spare time for more study, challenge their knowledge status so they are motivated to study and all this builds accountability and sense of responsibility towards their learning course, which in turn enhances them to follow deep learning applications (Smith & Turner, 2012). Thus, various aspects concerning deep approach to learning are achievable through improved student self-study as the classroom knowledge material cannot completely cover every concept to be learnt. The investigative and inquiry sense a learner develops, initiates their level of mental cognitive status to further expand.

As it stands, student's structuredfromemployinginstructionadiversifiedrangeof eman deep approach to learning techniques as a result of their increased cognitive growth (Pascarella et al., 2012). Thus, imaginative systems are created to a greater extent when students undergo self-research that results in conceptual development, and Information and Communication Technology (ICT) systems have been linked to assist greatly in such areas. The use of ICT affords students an opportunity to assume learning processes on their own, thereby creating independence, which further leads to deep approaches of learning as students are confronted with conceptual subject matter that challenges them. And also, learners can

become involved with the learning process during their own time. This removes the classroom setting by establishing personal learning environments and the students can focus on a wider scope of their activity, which results in a comprehensive coverage of assigned work (Abbot et al., 2009).

Accordingly, abstract clarification is important so as to develop consistent as well as deeper fields of study pertaining to technology-supported learning techniques; hence original and creative frameworks must be put into practice in all technological prospects as opposed to being ascertained by them (Boyle & Ravenscroft, 2012). Intuition in the student is also an important part of deep approach to learning process that can be championed through self-research. An author (viz., Laevers, 1998) argues that, intuition, which is an act of knowing without utilising rational processes, is a deeper stage that involves cognition, capable of making progressive effect on learning processes as learners conceive reality situations and express them. Thus, the academic staff must not just deliver knowledge to the learner without making considerable impact on students'intuition, as their subsequent lesson delivery successes depend on those intuitions. Intuitions go hand in hand with reflections. Reflections support a learner to develop independent thoughts that assist deep approach to learning. This has been made possible since most academic institutions expect students to give account of what they have learned through various educational forums; hence learners are compelled to pay attention to their thoughts, as well as enunciate verbally or in writing every outcome of those long considerations (Hinett, 2002).

There exist other significant characteristic features of an independent learner capable of motivating, improving self-reliance and self-potency which support deep learning approaches. Given that, Baeten et al., (2010) interpret that the students must also be content with applicability of assigned tasks, evaluation methods attached and available teaching techniques, along with explicitness of goals. Therefore, students must take individualised steps and action. Besides deep approach to learning, key influencing factors include appropriately built environments that establish strengthened student individual interest and increased diversity of relevant context that are capable of inducing the learner independently (Warburton, 2003). In the light of these findings, analysis furnished on students Sports Sociology course in a UK university informs that, deep approach to learning is stimulated through developing original personal ideas, improved student individualised motivation, ability to link new facts, as well as proficiency in finding meaning on issues that concern

academic subject matter independently (Leflay & Groves, 2012). Not surprising, establishing self-research in students entails changing teaching methods, redesigning the curriculum, evaluating learner perceptions involving efficacy, as well as investigating learning environments that could effectively foster the utilisation of deep learning methods (Gordon & Debus, 2002). The following section presents the methodology and analysis.

Methodology

This article is based on a case study of final year accountancy students at the University of Limpopo, South Africa. The study population is made up of the entire Bachelor of Accounting Science students and the Bachelor of Commerce in Accounting students. There was no sample selection as the questionnaire was administered to the entire final year students from the two streams of accounting degree. Subsequently, the responses from the students that returned their questionnaire were analysed. The final year students were considered appropriate for this study given that they constitute the mature class amongst the various years of accountancy study.

The major instrument considered in this study was the questionnaire; structured in a way that enhances the student to respond by presenting various feedbacks on the effect of independent research on approachstudents'tolearningof accountingdeep concepts. The instrument included a Likert scale framework that required the students to simply put a tick in the most suitable column they desired. Thus, the key issues in this tool were, namely:

2. Students' independent; learning
3. Students' ; deep learning
4. Academic performance of students by employing independent learning; and
5. How independent learning enhance deep-learning methods.

This research employed the questionnaire so that appropriate responses could be collected from the students. Therefore, individualised information involving the effect of independent research on students' deepapproach to learning of accounting concepts was acquired from the students. A total of 280 questionnaires were administered and because participation was not made compulsory, only 162 respondents submitted their responses.

Data Analysis

The data collected from the administered questionnaire on 162 responses were arranged and analysed using table presentations, and the Chi-squared method was also used to determine further investigation of the data. The outcomes of the study are thus presented using the following tables and Chi-square calculations.

Table Presentations

Combined (Bachelor of Accounting Science Degree + Bachelor of Commerce Accounting) - Final year students'Questionnaire outcomes.

Table 1: Presentation of findings from question one, three, five, seven and eight of the questionnaire for both groups

QUESTIONS No. 1;3;5;7 and 8	YES	NO
1. Do your lecturers encourage you to do independent or personal research/study on accounting concepts?	152	10
3. Do you think that independent research on accounting concepts assists you to understand concepts more than the	98	64
5. Do you suggest that lecturers should be giving students the opportunity to do personal research or study on accounting concepts?	137	25
7. I always remember accounting concepts when I do personal research or study on the concepts .	135	27
8. Do you believe that learning and understanding of accounting concepts will improve if lecturers constantlystudy or encourageresearch?	148	14

Table 2: Presentation of findings from question two of the questionnaire for both groups

QUESTION No. 2.	Always	Sometimes	Once a month	None
2. How often do your lecturers give you library or online research assignments?	18	115	10	19

Table 3: Presentation of findings from question four of the questionnaire for both groups

QUESTION No.4.	Very deeply	Deeply	Fairly	None
4 To what extent do you understand accounting concepts when you are given the opportunity to do personal research or study on such concepts?	16	42	100	4

Table 4: Presentation of findings from question six of the questionnaire for both groups

QUESTION No.6	Very important	Important	Slightly important	Not important
6. In your own view, how important is it that lecturers should give students personal research assignments?	58	81	20	3

Total number of students interviewed: **162**

Examining the relationship between Independent research and Deep approach to learning on BAccSci and BComAcc final year students.

Table 5: Examining the relationship between Independent research and Deep approach to learning on BAccSci and BComAcc final year students

Variable	**Outcome in numbers**		
	Yes	**No**	**Total**
Independent research	152	10	162
Deep learning	135	27	162
Total	287	37	342

Using the Chi-squared method:

Ho: There is no association between independent research and deep approach to learning.

H_1: There is an association between independent learning and deep approach to learning.

Table A: Showing observed frequency (Fo) values

Variable	**Observed frequency**		
	Yes	**No**	**Total**
Independent research	152	10	162
Deep learning	135	27	162
Total	287	37	324

Table B: Showing expected frequency (Fe) values

Variable	**Expected frequency**		
	Yes	**No**	**Total**
Independent research	143.5	18.5	162
Deep learning	143.5	18.5	162
Total	287	37	324

Table C: Showing Chi-squared computations

Variable	**Fo**	**Fe**	**$(Fo-Fe)^2$**	**$(Fo-Fe)^2/ Fe$**
Independent Learning				
Yes	152	143.5	72.25	0.503484
No	10	18.5	72.25	3.9054
Deep Learning				
Yes	135	143.5	72.25	0.503484
No	27	18.5	72.25	3.9054

			X^2 Stat	8.817768

Results: X^2 statistic = 8.817768. X^2 critical = 3.843. Level of significance = 0.05. Degrees of freedom=1. Decision = We reject Ho (null hypothesis) and accept H_1. Thus, there is an association between independent learning and deep approach to learning.

Conclusion

This article examined the students' viewof independentontheroleresear deep approach to learning of accounting concepts. The article draws from a case study of

final year accountancy students at the University of Limpopo. A questionnaire was administered to obtain students'responses on their view of the role of independent research on students'approachton deeplearningof accounting concepts. Responses were analysed

using the Chi-square statistic. The results indicate that, according to stude there is an association between independent learning and deep approach to learning.

Furthermore, the majority of the students interviewed is of the view that lecturers should

encourage them to engage in independent research and/or study of concepts, which, according them, assists them to better internalise these concepts. The article thus concludes

that given students' view regarding the imp importance being attached to teaching and learning as an essential service in higher

educational institutions, time has come toindependentintensifyresearchon stu accounting concepts as a vital component of teaching and learning technique; and to

gradually shift away from the conventional method of Teacher-Centred learning. Doing this would foster the moulding of future graduates that will have the potential to steer and manage the complex interactions of social and economic issues to ensure a sustainable knowledge economy. The production of graduates, imbued with the mind of self-confidence and inquisition to explore and discern, is a vital ingredient for transforming the society and to ensure growth and development.

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