



Keywords Search in Extensible Markup Language (XML): The Empowerment of Research Behaviour in Open Distance Learning

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ABSTRACT

Mentoring learners or young academics on how to adequately utilize the benefits of keywords search in professional and research behaviour is urgently becoming noticeable in Open Distance Learning (ODL) (otherwise, distance higher education) (DHE) especially in Africa. In nurturing adequate and sustainable research behaviour, the study recognizes the important dimension of learners' emotionality which it then constructed, using the emotional spiral to epitomize the effect of multi-behaviour techniques subsumed psychotherapeutically in facilitating research competence via the use of the keywords search. Following a four-week intervention of teaching-learning activities, the findings that utilizes ANCOVA at the alpha level of 0.05 showed that the research competence of the participants was enhanced tremendously with a statistically significant treatment effect (<0.05). It was therefore suggested that adequate training in keywords search and its application should be provided as part of regular up-dating skills in teacher professional development for a more sustainable research empowerment.

KEYWORDS: *Keywords search, Extensible Markup Language (XML), Empowerment, Research behaviour, open distance learning.*

INTRODUCTION

Empowering research behaviour and or competences, especially among the recipients of Open Distance Learning (ODL) and or the Higher Education (HE) generally, particularly through the adequate exposure and utilization of keywords search via the instrumentality of the XML are known activity that facilitates easy generation, access and utilization of information or needed data germane to any research venture in ODL. How to access, organize, utilize and apply gotten information is one of the foremost challenges in ODL research, both among young academics and distance learners (DLs). The inability of academics or protégés to access and utilize information through the various keywords search engines is partly responsible for very perturbed circumstance of academic indolence in HE within the African sub-regions.

Benefiting from the decision, to access bulky and relevant data from the advantages of utilizing the keyword search often requires some skills. First in the direction is how researchers and especially young academics (otherwise, the DLs) would identify, arrange and access key terms germane to their area of research inclination. Second, getting alternate word-meaning to enhance the potential to access more information on their chosen field or themes (otherwise, subject areas) that could be related. Third, how to choose from myriads of confronting information from the web; and finally, how to adequately use the mouse to scrow different directions, from the background of the utilization of any of the search engines, especially with wide choices. The facilitation of research productivity gets empowered however, through the adequate utilization of the keyword search. Keyword searches are effective and reliable method for finding and locating any related information in any computerized database be it TOPCAT (i.e. Tool for Operations on Catalogues and Tables), an online index or even an internet search engine (Library Skills Programme, 2009). It requires the learner to acquire some basic information on the simple mode for lodging into the search engine of one's choice. This has a lot of implication as prime research behaviour in keyword search which then facilitates adequate and prompt word-selection that are critical to research success both in ODL and overall research culture and national life would then become more exiting while subsequent academic ventures would be maintained

with less stress.

Using the keyword search to impact on research behaviour and competences in the African sub-regional development and growth however, especially within the ODL and or HE, is better favoured when the skills for choosing the most critical and or best possible keywords search in XML documents is known. Though the application of the XML needs lots of emphases in prompting adequate research behaviour among the recipients of the ODL (otherwise, the distance higher education) (DHE) much studies (Guo, Shao, Botev & Shanmugasundaram, 2003; Cohen, Mamou, Kanza, & Sagiv, 2003; Xu & Papakonstantinou, 2003; Li, Yu & Jagadish, 2004) have however attempted to support keyword search on XML documents by ameliorating such challenges as XRank, XSearch and Xkeyword to say the least. Although the XRank generalizes a hyperlink based HTML search engine such as Google, it is however used to query a mix of HTML and XML documents (Guo *et al.* 2008). The XSearch project bridges the gap between Beagle (simple interface, large search net) and find/grep (powerful searching, small search net). It is a fast real-time search engine for displaying all regular expression matches within a file, across multiple directories (Cortarello, 2008). The studies as highlighted above could though, be made simpler for the DLs' attempts to navigate and explore, the Xkeyword presents and or facilitates efficient keyword proximity queries on large XML illustration/summary databases. A query is arguably a list of keywords and does not require any schema or query language knowledge for its formulation (Hristidis, Papakonstantinou & Balmin, 2009).

Keywords search XML document to impact on teaching-learning academic behaviour of ODL

Though so much has been said about the recipients of the ODL, especially in the direction of research empowerment (Osiki 2008ab; Braimoh & Osiki, 2008), little or no apparent prompt has been provided on how to power research behaviour and or culture through the employability of keywords search. A lot of studies have benefited from the use of the keyword search (Hristidis, Papakonstantinou & Balmin, 2009; Liu & Chen, 2008; Liu, Walker & Chen, 2007) but with little or no African sub-regional background. Keywords search enable a user-friendly information discovery mechanism for web and scientific users to easily access XML data without the need of learning a structured query language or studying complex and evolving data schemas (Liu, Walker, & Chen, 2007). Using the keyword through search engines conveys some omnipotence of word-meaning to the young academics who, easily gets scared when related jargons are applied. But the academic and or professional competence can be enhanced through adequate mentor-protégé's relationship. Similar to the library catalog and as one or the multiple words can be searched, the DLs and or learners/academics generally could boost their searching skills when they are prompted through appropriate selection of words and or well edited and precise phrases as encapsulated in the entire bibliographic manuscript/record. A prime behaviour for adopting the application of keyword search is therefore beyond what the term ordinarily means.

Using the University of Alaska Fairbanks Rasmuson Library (2009) instructional Guide, the learner is ably instructed that the keyword search can be adequately utilized via: (a) when author's (s)' name (s) are known; (b) when authors' names may not be known but the text title is known; (c) when attempt is being made to search for some information by the use of subject but do not know the library of congress subject heading; and (d) when a researcher wants to search for more than one concept or word such as Alaska and subsistence. Usually the researcher needs skills for screening, editing and selecting appropriate and or critical term or terms in a theme. For instance given such research theme as *"Lingering Sadness: Marriageable Individuals' Response to the Problem of Suitors"* should presuppose that such term as 'marriage', 'lingering sadness', 'problem of suitors' (otherwise, the factors affecting late marriages) could be launched into any of the search engine for likely information on the area of the study. Sometimes, the researcher may be required to compare related terms especially when the key terms are identified and accurately defined for word-proximity. Adequately using word-proximity means that the researcher is enabled to break down every critical term in a study to its simplest but useful entities.

Maximum versus restricted guidance in mentoring keywords search XML document

So much debate has witnessed a stupendous discussion on how young academics and or researchers should either be directed and or guided to be more useful, especially to the dimension of achieving their personal professional independence. The observation of Ausubel (1964) and supported by later studies of Mayer (2004), was that the dispute about the impact of instructional guidance during teaching have been on-going for at least, the past half-century. On one part of the divide are those who hypothesized that people learn best in an unguided or minimally guided environment, generally defined as one in which learners, rather than being presented with essential information, must discover or construct essential information for them (Steffe & Gale, 1995; Papert, 1980). On the other side of the divide, are those who have contrary opinion and who supported the fact that everything should be done to facilitate a direct maximum instructional and information guidance of the learners irrespective of his/her discipline. Such

maximum guidance the second group maintained should equip and provide an enriched research foundation for the learners through the mastery of concepts and procedures required for professional development (Mayer, 2004; Klahr & Nigam, 2004; Sweller, 2003).

Although the minimally guided instructional approach has been identified by several names as problem-based learning (Barrows & Tamblyn, 1980); discovery learning (Anthony 1973); inquiry learning (Papert, 1980); constructivist approach (Steffe & Gale, 1995; Jonassen, 1991) among others, the study of Kirschner, Sweller & Clark, (2006) was quite intriguing. In the study which was an analysis of the failure of the constructivists, discovery, problem-based, experiential and inquiry-based teaching, Kirschner, Sweller & Clark (2006) inquired on “*why minimal guidance during instruction does not work*”. In their study, Kirschner, Sweller & Clark (2006) found among others enough evidence that supported the superiority of maximum guided instruction as encapsulated within the context of knowledge and human cognitive architecture, expert-novice differences, and cognitive load. They further iterated that although unguided or minimally guided instructional approaches are very popular and intuitively appealing, the point was made that the approaches ignored both the structures that constitute human cognitive architecture and evidence from empirical studies over the past half-century that consistently indicate that minimally guided instruction was less effective and less efficient than instructional approaches that place strong premium on guidance of the learner under going learning process and or tutelage.

While appropriate keyword manipulation requires screening for precise word-selection and application, mentoring young academics to benefit and excel in keyword search usage however demands patience and generous guidance. Guiding young academics in keyword search can be equated to the work of the nurse who is patient in the arrangement of appropriate skills for nurturing and the development of the child. The advantage of maximum guidance should therefore begin to recede only when learners have sufficiently demonstrated high prior knowledge to provide internal guidance (Kirschner, Sweller & Clark, 2006). Before adequate knowledge can be demonstrated to a sustainable standard, and would be useful to impact on value-driven research that can stimulate national and or sub-regional growth and development, most times, the learner and or group of academics would have unexpectedly committed academic (otherwise, professional) blunders. Academic and or professional blunders often committed by young academics take time to correct while usually, the emotionality of the learners equally takes a great deal of mentor-protégés relationship boosting for adequate dividends in mentorship to become noticeable.

Discussing how the research orientation of young academics could be boosted, Osiki (2009) once noted when he said that *'learners learn differentially even while under similar conditions'*. If that notion has any relevance especially in mentor-protégés relationship in keyword search, empowering the learners' skills in keyword search as it relates to the XML therefore presupposes that quality time and maximum guidance becomes the watch word. To define the term 'quality time' is not merely difficult within the circumstance, but it is really very elastic as learners have differential learning styles which must be understood while learning materials are adequately selected and arranged for meaningful learning. According to the 'Report of the Learning Working Group' (2009), the best teachers constantly monitor what is happening to students as they set about learning. The report further said that *'teachers regularly use evidence to check on whether their teaching is successful in its effect on students, whether the students are learning and if not, to ascertain possible impediments and barriers to their learning effectiveness'*. Effectively monitoring effective learning takes time while it is undoubtedly complemented with mentor-protégés commitment.

Boosting data bank through keywords search/coding in academic responsibilities

Learners, particularly at the ODL (otherwise, researchers generally) and or using the backdrop of the distance higher education (DHE) within the African sub-regions, would continue to benefit from regular information that requires the manipulation of key terms to advance research interest. Adequately utilizing keyword search through the various search engines needed to corroborate personal views, the opinions of others as well as empirical studies are more sustainable through the data bank. Data bank in keyword search is a necessity for creating an enviable culture of research especially in teacher developmental programmes in ODL and or DHE. For instance, the young researcher would easily be enabled to access millions of word-meanings along with their alternate components, past and current research works in related areas and or adjoint specialties as well as knowing how to locate work groups. If for example, the young academics are being mentored to trace and access an interest area germane to a study in 'attention deficit hyperactivity disorder' and are expected to use the data bank keyword search, the information could be gleaned from the web-page accessed table below:

Search Databank by Keywords

To view a study, click its entry number. If you entered your own keywords, results are ordered by best match to the

keyword(s) you entered; if you selected a keyword from the list, results are ordered by study number.

Entry No.	Title	Authors	Place of Study
<u>0369</u>	Case-control study of attention-deficit hyperactivity disorder and maternal smoking, alcohol use, and drug use during pregnancy.	Biederman J, Faraone SV, Kleinman S., Mick E, Sayer J	USA
<u>0384</u>	Cognitive and behavioral outcomes of school-aged children who were born preterm: a meta-analysis	Anand KJ, Bhutta AT, Casey PH, Cleves MA, Craddock MM	USA
<u>0422</u>	Is maternal smoking during pregnancy a risk factor for attention deficit hyperactivity disorder in children?	Biederman J, Chen L, Faraone SV, Jones J, Milberger S	USA
<u>0470</u>	High antenatal maternal anxiety is related to ADHD symptoms, externalizing problems, and anxiety in 8- and 9-year-olds	Marcoen A, Van Den Bergh BR	Belgium
<u>0525</u>	Attention deficit and hyperactivity disorders in the offspring of mothers exposed to mild-moderate iodine deficiency: a possible novel iodine deficiency disorder in developed countries	Artemisia A, Castagna MG, Crisa A, Lo Presti VP, Mattina F, Moleti M, Scaffidi G, Sidoti M, Tortorella G, Trimarchi F, Vermiglio F, Violi MA	Italy
<u>0546</u>	Impact of low birth weight on attention-deficit hyperactivity disorder	Biederman J, Faraone SV, Fischer MJ, Mick E, Prince J	USA
<u>0547</u>	Birth insult interacts with stress at adulthood to alter dopaminergic function in animal models: possible implications for schizophrenia and other disorders	Boksa P, El-Khodori BF	Canada
<u>0548</u>	Attention deficit hyperactivity disorders and other psychiatric outcomes in very low birthweight children at 12 years	Botting N, Cooke RW, Marlow N, Powls A	UK
<u>0549</u>	Maternal smoking during pregnancy and attention deficit hyperactivity disorder symptoms in offspring	Fowler T, Harold G, Hay D, Rice F, Scourfield J, Thapar A, Thomas H, van den Bree M	UK
<u>0550</u>	Cross sectional review of children with ADHD presenting to an outpatient psychiatric institute in Pakistan	Qureshi A, Thaver D	Pakistan
<u>0672</u>	Outcomes at 2 years of age after repeat doses of antenatal corticosteroids	Crowther CA, Doyle LW, Harding JE, Haslam RR, Hiller JE, Robinson JS; ACTORDS Study Group	Australia

Source: Birth Works 2009.

As gleaned from the inserted web-page table, the young academic must be patient to follow instructional guidance to maximize the skill for accessing needed data. Empowering adequate research and or professional behaviour that harnesses the benefits of the keyword search, apart from implicating maximum instructional guidance, also necessarily involves the mental frame and emotional well-being of the learner. Learners learn best when they are emotionally stable and can be expected to go the miles in professional commitment and in tasks relating to research and or academic tutelage.

In modeling the sustainability of learning effectiveness and in particular, facilitating how human emotions can be directed in the achievement of meaningful research behaviour, Dunn & Dunn (1978) said that learners are affected by their: (i) immediate environment; (ii) own emotionality; (iii) sociological needs; and (iv) physical needs. Osiki (2008, 2007) studies in contributing to the argument supporting the beneficial effect of learners' emotionality reasoned that

the learner's emotional status can be subsumed using the four factors and are: (i) presence of environmental stimulus; (ii) sense of heightened physiological arousal; (iii) personal idiosyncrasies; and (iv) cognitive appraisal of any given situation. Furthermore, the paper argued that for the professional teacher to acquire information germane to their individual development, as it were, skills for using keyword search in research, the state of their mental stability and happiness should be congenial (Osiki, 2008). Learners academic/professional behaviour and, in particular, research empowerment are better facilitated when their self-perception and how they are perceived by others correlate positively. Although Pennington (2008); Hutchins (1995); Mayer (1999) have arguably implicated the dimension of cognition, creativity and motivation for prompting adequate learners' behaviour, human emotion however has premium on how the individuals are taught, mentored, how they interpret learning materials and how the product of mentor-protégés' behaviour is applied to savage human problems vis-à-vis research empowerment. In mentor-protégés relationship therefore, academic mentors would be more effective when the learners' limitations are recognized, not merely for their criticisms, but, rather, as a devise employable to influence how learning materials are selected, scrutinized, developed and arranged for adequate learner's empowerment (Osiki, 2009), and especially in research competence as well as related academic behaviour that maximally harnesses multi-guidance approach.

Adapting the benefits of the multi-guidance approach, Kirschner, Sweller and Clark (2006) have submitted that after several studies, there was no clear evidence of research utilizing the controlled experiments that supported the application of unguided and or minimally guided instruction as a better option. Controlled experiments in their further elaboration, almost uniformly indicate that when dealing with novel information, learners should be explicitly shown what to do and how to do it. Doing what is expected adequately should show that learners can only maximize their best potentials when they are directly guided as against the constructivists' learning approach. In a corroborative investigation where learners were exposed to qualitative case studies, Aulls (2002) observed the scaffolding that the most effective teachers had utilized when students failed to make learning progress in a discovery setting. The report had it that the teacher whose students achieved all of their learning goals spent a great deal of time in instructional interactions with students by simultaneously teaching content and scaffolding-relevant procedures. Scaffolding-relevant procedures were facilitated via: (a) modeling procedures for identifying and self-checking important information, (b) showing students how to reduce that information to paraphrases, (c) having students use notes to construct collaborations and routines, and (d) promoting collaborative dialogue within problems.

Even though ample evidences are available to show the outcomes of effectively and well designed controlled experimental studies that ably support direct instructional guidance (Moreno, 2004; Klahr and Nigam, 2004; Chall, 2000; Tuovinen and Sweller, 1999), the cyclical model epitomizes outcomes in mentor-protégés relationship. According to Osiki (2008) study on empowering the research culture of DHE, to the point and or desired level, the creation and sustainability of research culture among learners depends on quite a number of factors. These factors are: teachers' professional commitments, mentor's (s) willingness, protégés'(s) ready availability and respect/teachableness, supportive academic environment and regular and generous research funds, which are part of the motivation that a virile tradition of research, especially in ODL needs. How research funds are disbursed and applied for quality research are additional consideration that should retain an in-built mechanism for regular feedback. Gleaned from the cyclical model (Appendix), adequate mentor-protégés' relationship especially using the direct guidance approach would expectedly lead to protégé's personal development since within the learning environment there is a symbiotism of shared knowledge where the young academic merely set the pace through a responsible feedback. Inferring from earlier conclusions, Moreno (2004) has supported evidence that there is growing body of research that have indicated that students learn more from deeply from strongly guided learning than from discovery. The evidence as derived from such others as Klahr and Nigam (2004) not only tested whether science learners would learn more via a discovery versus direct instruction route but also, once learning had occurred, whether the quality of learning differed. The investigation examined in particular if learners who would have had exposure to the discovery method were better able to transfer their learning to new contexts. The outcomes were obviously unambiguous; and direct instruction involving considerable guidance, including examples, resulted in vastly more learning than discovery. Those relatively few students who were exposed to the discovery learning approach did not exhibit any signs of superiority, even in the quality of learnt information (Kirschner, Sweller and Clark, 2006).

Feedback in Keyword Research Empowerment

Regular feedback is an important dimension in mentor-protégés' relationship. It serves as the motivation in mentor-protégés' relationship that essentially direct how to facilitate professional tutelage. Empowering research behaviour and or competences in keyword mastery and usage, the mentor is pre-informed on the *modus operandi* (otherwise, *vivendi*) for organizing extra academic behaviour vis-à-vis when, where, and how to instruct the learner through

varied methods. While such studies as (Duun & Duun, 1978) have examined the implication of differential-learning styles on the learners' ability to learn, how the learners learn and how they learn what they are expected to acquire are important dimension in meaningful information acquisition, recall and remembrance. In responding to the question whether feedbacks are necessary for facilitating the product of research empowerment Osiki (2008) opined that higher education (HE) and or ODL is interestingly, the embodiment of differential-administration of feedback some of which can either be described as 'the scrupulous' and the 'unscrupulous' depending on who the research/dissertation/project advisor (s) is (are). Higher education feedback, particularly if it is the product of sound scholarship, evolving from the interpersonal relationship between a mentor and his/her protégé can be result-oriented and a strong foundation for capacity building. When feedback to either the learner and or the younger academics is haphazardly administered, may be due to the inexperience of the advisor, and or provided when there is a conflict (otherwise, as the case could be when transference and or counter transference) between the supervisee and the advisor, then its outcome, could be too unscrupulous. Sometimes, the situation may equally arise, where imbalances between advisors -supervisee ratio may subsist; and where the advisor would be compared to react under some workplace pressure. Without equivocation however, in the circumstance of plagiarism, which is much the vogue today in most of the e-learning, the advisor should be meticulous and be observant (Osiki, 2008). Feedback, essentially, is the various information, which depicts the outcome of the advisor-supervisee relationship, provided for the enhancement of overall productivity. Feedbacks are given in various forms, depending on whether it is or not computer-based. In general terms, feedback is any message generated in response to a learner's action. Among the most important outcomes of feedback are helping learners identify errors and become aware of misconceptions. Feedback is also a significant factor in motivating further learning (Mason & Bruning, 2008). As described by Cohen (1985), feedback is one of the more instructionally powerful and least understood features in instructional design. In examining the literature on feedback in computer-based instruction, Mason and Bruning (2008) grouped feedback into seven clusters: (a) knowledge-of-response, (b) knowledge-of-correct-response, (c) answer-until-correct, (d) topic-contingent, (e) response-contingent, (f) bug-related, and (g) attribute-isolation. A theoretical framework based on the research was provided to assist designers, developers, and instructors in creating effective feedback in computer-based instruction appropriate to a variety of conditions. Variables to be considered in determining the type of feedback and level of elaboration include (i) student achievement, (ii) task complexity, (iii) timing of feedback, (iv) prior knowledge, and (v) learner control (Mason & Bruning, 2008). The Open University (OU), United Kingdom (2008), discussing the potential advantages in skill improvement through available feedback said that the learner is enabled in facilitating response to the following items: (a) are the comments expected? (b) Do you agree with the comments? If not, in what ways do you disagree? (c) What steps can you take to address the issues raised in the comments?; and finally, (d) what specific skills do you think you need to improve?

Retrospecting further, and as ably highlighted in the aforementioned, the application of feedback acceptably benefits several learning situations especially within the ODL. In a value-driven research that is for instance strongly motivated through adequate application of the keywords search, where learners' skills are accessed for any deficiency (otherwise, adjudged for being deficient), expected suggestions for improvement are easily generated and monitored. In a more mutual and symbiotic relationship, apart from maintaining compromises, the academic mentor (s) knows when the learner is ready to learn, continue to advance learning productively and by way of intermittent collaboration in professional activities, reinforced through a virile feedback could predictable announce the learner's maturity for consequent research independence. Using feedback vis-à-vis adequate keyword search prowess to boost research culture, that is formidable and unequivocally sustainable, especially in the twenty-first century ODL and African development, the product of mentorship should be concrete and transformational. The learners for instance should be equipped to acquire relevant skills for accessing and applying web-page documents through the promptitude of keyword manipulation and search to improve academic behaviour as well as professional competences. The learner can acquire information on the different work groups (e.g. XML coordination group, XML core working group, XSL, XSLT, XSL/FO) and a host of others as well as their advantages.

Prominent challenges in the twenty-first century academia

A very common workplace practice, and which equally epitomises that of the Higher Education, World-wide, is the exercise of 'pseudo-empowerment'. Pseudo-empowerment summarises the inclination of management activities geared toward a direct attempt to change the attitudes of workers, colleagues and, or learners to enable them to work harder through conformity rather than providing enabling environment for independent, creative and democratic and well reasoned ideas which is the function of *real and ultimate 'power'* (Braumoh and Osiki, 2008). Wilkinson (2004), used the term 'attitudinal shaping' to characterise some of the antecedent weaknesses inherent in institutional pseudo-

empowerment. Wilkinson's application of the term '*attitudinal shaping*' most relatively collaborate what the outcome of effective and meaningful learning should epitomised. Learning, for instance, is productively expected to lead to a change in the learner's behaviour but how the changes are instigated to benefit national growth and development has been conjecturally debated. Today in the world over and especially in the African sub-regions the teacher-learner interaction that should have impacted on developmental researches is no longer the vogue. Learners and, or younger colleagues who were supposed to be regularly mentored in a most productive and elegant manner, particularly typifying academic culture of excellence in research, teaching and community services that should have ably benefited from adequate keyword search and application hardly have enough time and interest (otherwise, commitments) which are the hull mark of academic responsibilities.

The investment of reasonable time and learners' commitments as well as their interest are basic prompts which value-driven research needs to impact meaningfully on national development of the African sub-regions. Unfortunately however, the twenty-first century learners wants everything provided in a hurry even where skills acquisition are not justifiably and significantly obvious. Demonstrating skills in keyword search arising from multiple manipulations of search engines has not attracted so much interest especially among young academics that are easily unavailable for mentorship. Mentoring the recipients of the ODL and or DHE is conspicuously a big challenge as, to a large extent, most of their studies are online-based. Paradoxically however, the rapidly changing landscape of higher education in Africa now typifies the condition of an unimaginable apathy, so to say, on the part of some academics and the management staff of several African Universities, in promoting professional initiation of the new entrants into the culture of teaching, research, scholarship and publishing. Adjudged from the aforementioned perspective, the psycho-social stability and or emotional preparedness often desired in the quality of performance of the junior and the inexperienced newly recruited lecturers (and sometimes, the learners), who inevitably engage in the process of trial and error, in order to find their feet in academia, with regard to what to do, how to do it, when to do it, and the extent to which what is expected, get marred and unfortunately confused from the onset (Braithmoh and Osiki, 2008).

Mentoring, typified as part of any institutional responsibilities, is the informal educational and or organisational process which promotes personal and intellectual (otherwise, management) growth, including professional development through empowerment and confidence building for the achievement of academic, professional, workplace and other organisational competence (Braithmoh and Osiki, 2008) further submitted. In applying the general concept of personnel mentoring, which among others, includes coaching, training, discussion, counselling and or supervision of the less experienced scholars in academia and, or personnels (and students inclusive), it is the basis for the development of a virile, nurtured and well groomed academic of all time and for all days. Such academic exercises are most sustainable through adequate instruction in keyword search and application. But unfortunately, some academics would rather prefer the unprofessional route that is arguably unproductive and against ethical standards for academic outlets and recognition.

Perpetuating routes that are unprofessional (i.e. the different forms of cheating) is a regular bane in academic institutions of learning world wide. As one of the prominent challenges especially stressing every known administrative structure in ODL and or DHE is the issue of plagiarism which is noticeable both at the classroom lectures, seminars as well as in students' assignments, projects and dissertation writing. Even though mentoring is described as part of the activities conducted by a person (the mentor) for another person (the mentee) in order to help that other person to do a job more effectively and/or to progress in his/her career, the bulk of online information and their easy access is the excuse for academic indolence, gullibility and cheating. Mentoring, with defined specific goal, does not promote gullibility in the mentee; rather, it equips the mentee with independent skills needed for sustainable growth and personal development. The mentor, in HE and or any organization, would probably, therefore, be someone who had "been there, done that" before (<http://www.managementhelp.org/guiding/mentrng/mentrng.htm>) and knows 'what' 'when' and 'how', the expected competences in keyword search, that are arranged to facilitate skill acquisition, but without exploitation. Plagiarizing the work of others in the twenty-first century HE, and or ODL (DHE) though an aged-long phenomenon, is a constant threat in the concretization of ODL gains as well as the operationalization of either employee (with emphasis to the academics) and learners' empowerment (otherwise mentorship), that has continued to erode the fundamentals in education. Academic cheating in its various forms can lead to summary dismissal from work or studies or it could even attract demotion, a failure in course grade for a paper, and sometimes, expulsion from the programme. It is a breach that erodes known academic confidence, and equally, potentially affects institutional image negatively. In the 'Distance Education Student Handbook' (2008), different perspectives on plagiarism were summarized to include, among others, the following: (a) Copying and pasting text from on-line media, such as encyclopedias; (b) copying and pasting text from any web site; (c) transcribing text from

any printed material, such as books, magazines, encyclopedias or newspapers; (d) simply modifying text from any of the above sources or replacing a few selected words using a Thesaurus; (e) using photographs, video or audio without permission or acknowledgment; (f) using another student's work and claiming it as your own, even with permission (known as collusion); (g) the acquisition of work from commercial sources; and (h) translation from one language to another is not using your own words which fall under the guidelines for quotations, summaries and paraphrasing.

Although plagiarism is almost an intractable embarrassment the world over, its continued menace is a regular concern in HE and educational institutions generally, but, with a lot of worries in open and distance learning (ODL) globally. While academic cheating cannot be limited to time, space and, or environment (otherwise, type of programme), the sustenance of the ODL programmes via the machinery of especially technology, almost often, smears the purpose of education, academic credibility and professional excellence; while acknowledged academic shrewdness of programme facilitators (PFs) vis-à-vis those in tutelage, have gotten rather, asymptotic since the gap between theory and practice, is not merely sluggish, but wider; with very obvious and concomitant increase in school dropout and antecedent unemployment.

Adapting Pep Talks to Prop up Adequate Keyword Search Professional Behaviour in ODL

Empowering adequate academic competence, which is research-focused in HE/DHE, over the years, has utilized differential methods in the stimulation of expected professional behaviour. One of such methods was the use of academic tenureship; while others are the provision of research allowances, promotion by virtue of individual contribution to knowledge through peer review nationally and or internationally reputable publications, conference sponsorship; post doctorate fellowship and or grants. Unfortunately, even though the aforementioned facilities are provided within the HE, to boost its research responsibilities, in comparative terms however, research behaviour in so many of our institutions of higher learning (IshL) epitomizes that of hatred, complacency and or academic indolence or simply apathy.

Though the studies of Osiki (2008d; 2007; 1999) have indicated learners' (otherwise, professionals and or younger academics) apathetic behaviour to research (i.e. whether qualitative and or quantitative), for adequate stimulation of research behaviour in ODL, Osiki (2008b) among others, suggested that the learners' emotionality should be understood and reinforced promptly. It further said that, even though, the early response in the generation and or construction of research ideas might be wrong or unproductive and or not feasible, the learners should not be written off but, rather, be acknowledged for being original. Adequately prompting expected research behaviour that is sustainable, would, however be on a high academic pedestal, where behaviour props are systematically arranged for intermittent release and reinforcement in mentor-protégés relationship. Mentors and or academic superiors must therefore acknowledge the fact that, every human being in especially academia, wants to be told that they are capable of performance and achievement. Through a bombardment of pep talks for instance, that are paired with adequate goal-setting behaviour, information search, utilization and application, the learner can be mentored through collaboration (i.e. exemplifying the four pillars of education for all- learning to know; to do; to live together and with others; and to be) to the point of obvious consolidation of mentee's self- confidence. Effective use of pep talks and or behaviour props arguably involves helping the learner to re-arrange his/her personal thoughts that might have had depletory impact on their academic competences (including research capability). In mentor-protégés relationship, the protégés (or mentee) feels better each time he/she hears the academic superior repeatedly saying such verbalizations as “I know you can do it”; “I have confidence in you”; “you have improved so much”; “I am also learning from you”; “I am too sure that your presentation would go through”; “you have the skills”.

Harnessing the Dividends of Psychotherapeutic Mentoring in ODL Empirically

Directly related to behavioural props, but more expansive, in terms of its practicality for the empowerment of individual emotional adjustment, is mentorship facilitated through psychotherapeutic methods. The term 'psychotherapy', among others, is any form of treatment for mental illnesses, behavioural maladaptations, and or other problems that are assumed to be of emotional nature (i.e. research complacency and or indolence), in which a trained person deliberately establishes a professional relationship with the client and or the disturbed for the purpose of clarifying, removing, modifying, or retarding existing symptoms, of attenuating or reversing disturbed patterns of behaviour, and of promoting positive personality growth and development (Osiki, 2008a; 2007; American Heritage Dictionary of the English Language, 2000; Wolberg, 1995; Campbell, 1989). Empowering professional teachers within the backdrop of the DHE/ODL and or academics generally in HE, with the utilization of psychotherapeutic mentorship essentially, the mentees (i.e. younger/old but, academically unproductive, who could be programmes facilitators [PFs] but are nonplussed or complacent, as well as learners) are purposefully mentored to the point of resourcefulness. Empowering the mentees to being academically and or professionally resourceful is comparable to

the role of specialist nurses, who clinically nurture and care, through devoted and quality attention to their patients, until the patients achieve obvious wellness and improved quality of life. It is also comparable to the task of the responsible farmer, who, through the nursery stage of planting development, amidst obvious challenges perhaps, but because he is holistically committed and directed by the possibility of future dividends, he/she facilitates and tends the crops for the national economic impact and collective survival of his/her people. Psychotherapeutic mentorship does not criticize but recognizes the challenges in professional empowerment (i.e. academic/professional indolence, complacency, apathy, non-cooperant attitude and or laziness in the mentees), harnesses them as its opportunity, through the application of its sub-techniques, to instigate and inculcate a sustainable research culture (otherwise, academic behaviour) in the learners/mentees. Such psychotherapeutic sub-techniques include among others: (a) supportive technique; (b) re-educative technique; and (c) re-constructive technique respectively. In the adaptation of the supportive technique for instance, the mentor-protégés' relationship can be facilitated through the adequate use of behaviour props to encourage and promote the development of maximal and optimal use of the mentee's as set and or target. The sole objective here is to strengthen existing defenses, elaborate better mechanism to maintain control and restore to an adaptive equilibrium the individual academic/research potentials through direct/maximum guidance, environmental manipulation, externalization of interests, re-assurance (including the reduction and removal of academic/research-related anxiety), pressure and coercion, persuasion, catharsis, desensitization and inspiration methods. While the re-educative technique on the other hand, simply involves the provision of insight to the mentee to facilitate his/her personal appreciation of his/her conscious conflicts through a deliberate efforts directed at goal modification and the maximal utilization of existing potentialities; that on the use of the re-constructive technique, harnesses the benefits of the reframing sub-technique in providing insight into the mentee's unconscious conflicts while altering his/her character structure (i.e. old frames, thoughts, ideas, views of self).

Several studies (Osiki, 2008ad, 2007, 1999; Osiki and Braimoh, 2008; Erbaugh, 2007; Hayes, 2007) have provided empirical evidences to support the continued marginal dividends arising from the selection and application of psychotherapy for ameliorating human disturbed conditions (otherwise, deficiencies). Such available evidences equally support the notion that the application of psychotherapy in facilitating human needs areas (i.e. academic/professional challenges) in either the ODL and or the HE generally is a possibility. Using the benefits of psychotherapy to empower research culture in South African HE (otherwise, the DHE/ODL) and or generally the HE in the African sub-regions, especially for a sustainable future, the four-phased approaches, which are then subsumed in the emotional spiral model and the cyclical academic research empowerment are the recommendations. The phases are: (i) the stage of catching the learner young (i.e. Elementary school level); (ii) Secondary/High school stage; (iii) the stage of HE tertiary institutions' curricular review; and (iv) academics in postgraduate studies and or academics with research indolence (i.e. tertiary institution personnels). Within the theoretical models, the phases serve as building blocks for the succeeding empowering stages, even though at the stage where the academics are either pursuing graduate studies and or not motivated, through collaborative studies, in-house seminars, joint-conference cooperation submerged in behavioural props, that harnesses the benefits of psychotherapy, the once complacent academics can be goaded and be empowered.

While the arts and crafts are purposefully utilized at the elementary level of education in propping up the hidden/latent intellectual skills of the learner, at the secondary/high school stage, learners are prompted through the administration of time-framed mini-projects. Graduate studies/programmes at the tertiary level would have the curricular reviewed to impact on the core-certification/degree requirement geared toward the development of research skills while such earlier identified options in graduate studies (i.e. the option to and or not to have research components) are made obsolete. Revamping therefore a sustainable research culture via psychotherapy, especially within the African populace, some of the possible advantages of the proposed model are that: (i) empowering research/academic behaviour begins at the learners' tender age; (ii) empowerment is a possibility at every life stages as long as the mentees' (protégés') commitments can be guaranteed; (iii) empowerment at any stage can be benefited when rules are strictly adhered; and (iv) in mentorship, objectives and or goals must be well conceptualized and identified in the enhancement of individual commitments.

Thus, using the theoretical model to boost the illustration (otherwise tagged emotional spiral), the inference is that, like the spiral, the learner's perception of self-worth (which is a function of other factors as personal idiosyncrasies, environmental stimuli, attitude of significant others, etc) has propensity in the determination of his/her tasks-committedness. The tasks commitments especially adapting cross-disciplinary learning (CDL) and or interdisciplinarity can have several levels as: *'never committed'*, *'lowly committed'*, *'moderately committed'*, and *'highly committed'*. Irrespective of the learner's committedness however, tasks commitments directs how skills are

acquired; while finally, adequately acquired skills (research empowerment) prompt academic competences, professional credibility as well as the research breakthrough with the consequent sub-regional and or national (otherwise, global) socio-economic sustainability, political stability, technological advancement and better quality of life. When, as the spiral (fig.1) epitomised below, the learners and or researchers' emotionality is adequately prompted and facilitated psychotherapeutically, his/her academic and or research apogee then becomes a reality. Research apogee (otherwise, academic apogee) is hereby defined to include among others, the outcome of effective mentor-protégés' relationship and that which epitomises professional and academic growth where the learner is said to have achieved maturity and independence. The outcome is the function of multi-behaviour (i.e. tasks) to which systematically, the learners, over time, has successfully being exposed and accessed.

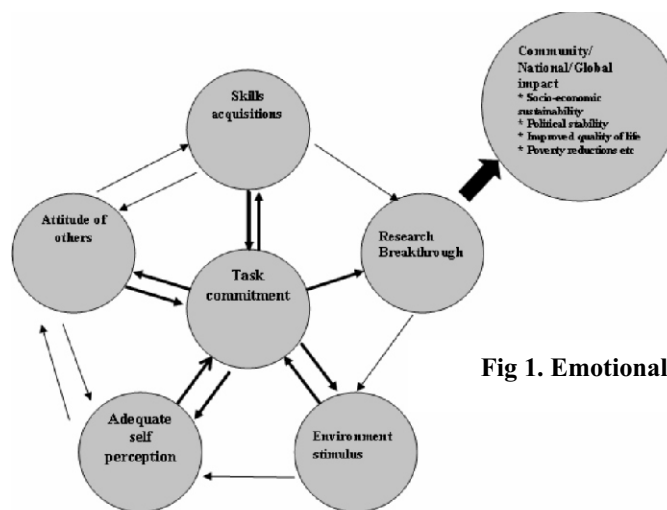


Fig 1. Emotional spiral/model (Osiki, 2008a)

The above framework was the foundation of a research empowerment study that was sustained through the beneficial use of the BLA, which span four academic sessions at the University of Ibadan, Nigeria. The programme involved Distance Learners (DLs) drawn from the Faculty of Education from where the researcher is presently away on sabbatical/accumulated leave. The DLs were enrolled in Guidance and Counselling Programme; even though the participants were screened from a background with multiple differential-teaching subjects' combination. The aim of this study was to investigate the relative and differential effectiveness of three behavioural techniques (BTS) subsumed in psychotherapies in ameliorating learners' emotional tension in the improvement of research writing and reporting skills. Specifically, the focus of the study was to examine how Reframing Technique (RT), Rational Emotive Behavioural Technique (REBT) and the Assignment Method (AM) can be utilized both as combinatorial and independent techniques to boost the DLs research potentialities. The study is particularly focused to help the DLs to acquire expected emotional preparedness which is essentially important for meaningful learning, in especially the research competence. A very critical assumption of the study is that, should the learners' emotionality be facilitated through adequate utilization of behaviour props, the learners have the potentials to ascend and sustain their academic and or research apogee.

METHODS

The mixed-method approach was utilized to conduct this study spanning through four academic sessions. Unlike the previous study that span between 1999 and 2000, a total of 874 DLs with 293(33.5%) males and 581 (66.5%) females in the baccalaureate programme in Education and Guidance and Counselling drawn across the 2002, 2003, 2004 and 2005 academic sessions, subsumed into four teams, were treated to a six-week intervention programme in research methodology and project-with course code: GCE 410). Prior to the evaluation, in each of the academic sessions, the DLs usually met for a six-week face-to-face contact lecture period. The face-to-face interactive section was purely meant for review and question time which was done for four weeks while the last two weeks of the six-week period was the examination. Usually, four out of six weeks of face to face review of lectures and question periods following correspondence are given to the DLs on campus-format and, or in-school residential interaction form. The four weeks instruction was provided prior to another two weeks of examination (making 6-weeks in all). The DLs, enrolled in Education and Guidance and Counselling Programme were exposed to the three BTS subsumed in

psychotherapies separately and the non-intervention group, using the four academic sessions (i.e. as a block or stratum) each, for allotment into and combination of psychotherapies (Groups I, II, III and IV) respectively. The intervention periods lasted two hours (double periods) and one-hour (single period), representing three credit hours, thrice weekly during the face-to-face interactive lectures while assignments were provided as take-home for Continuous Assessment (CA).

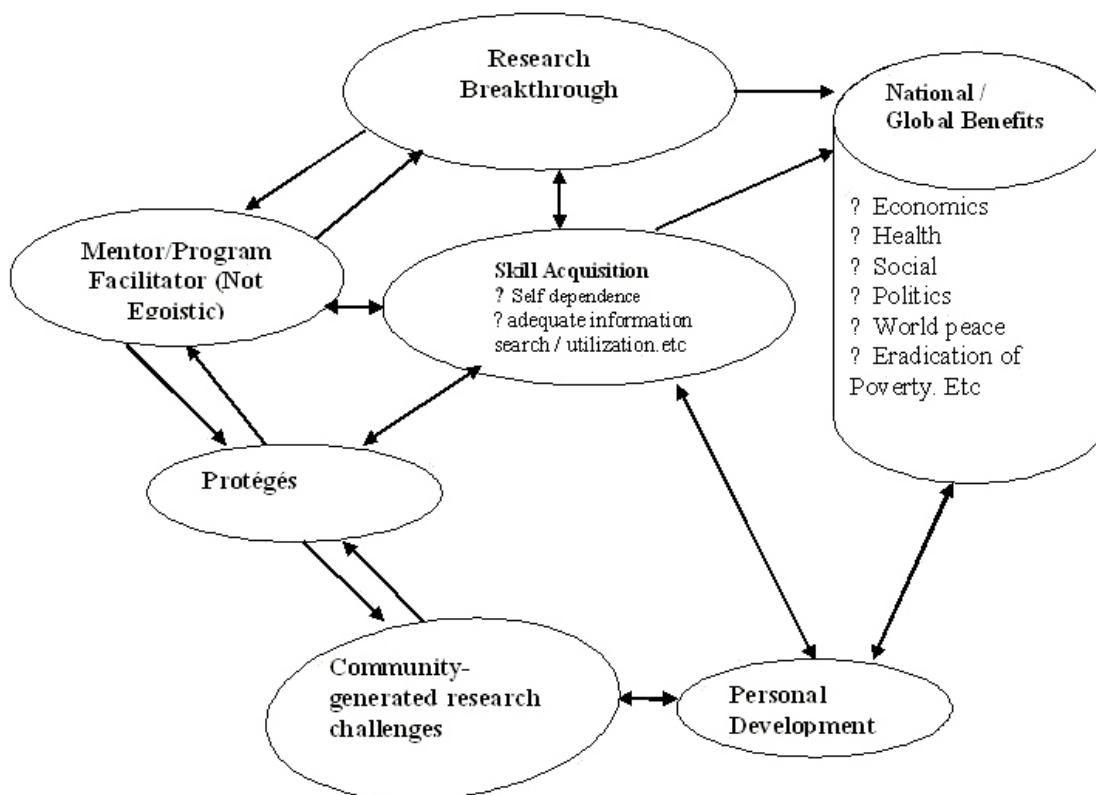


Fig.2 : Cyclical Model in Academic Research Empowerment

Data were collected at the intervention levels including the pre-test, post-test and control. The Research Status Inventory [ReSI] was the major research instrument used for data collection. The ReSI has two sub-sections (i.e. Personal quality and Preference Indicator). The first sub-section was made up of 19 items that require the participants to rate him/herself on how good they are in the sub-component areas of research methodology. The Personal Quality (PQ) sub-section of the ReSI was screened following expert judgments in psychometrics for its validity while the reliability value of $r(0.85)$ was obtained using the Cronbach alpha. The Preference Indicator (PI) so tagged, comprises of two sections 'A' and 'B'. While the first part, which consists of 11 items, tapped information on the participants' emotionality, section 'B' was a proto-type Essay Question, usually moderated by External Examiners, and as part of the regulations in all Degree Examinations monitored by the National University Commission (NUC) in Nigeria. Such designed examination questions are moderated on the basis of certain criteria some of which are: (i) adherence to designed curriculum, (ii) difficulty level, (iii) coverage, (iv) whether verbose, (v) and the response time. The PI (B) is optional and the DLs were free to decide which four out of the six questions they preferred; but the grading of scripts was patterned to testing standard rule where all participants' feedback were scored and graded by marking all question one (Q1) across board before all Q2, Q3, Q4, Q5, and Q6 in that order. This was done to reduce both halo effect and discrepancies in script-grading; and it easily allows raters to assess individual position in terms of group performance. The reliability of the PI, which has 6 items in Question Format, and previously administered, and drawn from the Departmental item pool was ($r=0.78$), following the split half coefficient relationship. In the assessment on how well the DLs have achieved and or gained during the application of the intervention

package, the research prowess (otherwise, skills) of the DLs was assessed following the mapping of critical areas in project report writing and after which the DLs were exposed to '*end-of-course examination*'. The critical areas which are embedded in the sub-categories of 'Research Methodology' (GCE 410) are: I.(a).Title of Study (which must be concise and feasible),(b).Abstract, (c).Introduction (background to the Study), (d). Statement of Problem, (e). Research question and, or Hypotheses (f). Objective of the Study (i.e. General and Specific Objectives), (g).Significance of the Study, II. Review of Related Literature (a). Theoretical Framework, (b). Empirical Background; III. Research Methodology-(a). Research Design, (b). Population of Study, (c).Sample and Sampling Techniques, (d). Research Measures, (e). Research Procedure and administration, (f) Data Analysis; IV.Results and Findings (i.e. hypotheses testing and tabular summaries of findings) and discussion of findings. V.Final Chapter (i.e. summary of findings, implication of findings, conclusion of findings, recommendation/ suggestions for further studies); References and appendix (appendices).

The Quasi-experimental and the causal comparative research designs were used in the study. The multiple cases were analyzed for the purposes of empirical evidence and theoretical replication which either (i) predicts similar outcome details; (ii) produces contrasting results but for predictable reasons. The development and validation of theoretical framework are germane for replicability of research procedures (Osiki, 1999; Yin, 1994). The participants in the intervention study were exposed to three psychotherapeutic techniques of (a) Reframing Technique (RT); (b) Rational Emotive Behaviour Technique (REBT); (c) Assignment Method (AM) and (d) the control group. The rationale for the adaptation of the psychotherapies was to generally find out how, their direct application would be useful for modifying the learners' emotional preparedness in boosting the DLs' research prowess/empowerment. The premise of this study was therefore based on the assumption that learners' (i.e. DLs) emotional tension would not be ameliorated to enhance prowess and or skills, especially in research methodology/project when selected behaviour techniques (i.e. RT, REBT and AM) are subsumed in psychotherapy and applied. Importantly, the assumption was that Distance Education learners' ability to develop researchable topics, retrieve and apply needed library information, construct acceptable research designs and measures as well as the choice of appropriate statistical methods will not differ significantly when they are exposed to the three selected BTS. The maturation effects of DLs was equally assumed to boost the potentialities of the control group (i.e. those without intervention) while equating their outcome research prowess to those of RT, REBT and AM groups respectively. Specifically therefore, the study hypothesized that (i).DLs' research prowess will not be significantly different following their exposure to the combined effect of the three BTS subsumed in psychotherapy and the non-intervention group(CT); (ii).DLs either exposed to the RT/AM and AM alone and REBT/AM and AM will not be significantly different in their research prowess; and (iii).Exposing the DLs to the individual psychotherapies with a concomitant research prowess will not be significantly different.

RESULTS AND DISCUSSION

The details reported in this section are sub-divided into the pre-intervention and post-intervention outcomes. The pre-intervention outcome summarizes the details following the administration of the copies of questionnaire tagged the "ReSI" subsumed in sub-section 'I' (Personal quality) and sub-section II-AI (Preference Indicator); as well as AII (Preference Indicator-Emotionality) (Osiki, 2008a; 2007).

Pre-intervention outcome:

The initial introductory lecture that was given to the DLs showed that over 95.64% of the distance learning participants had no previous research orientation and would be happier if research methodology courses and, or dissertation were not made part of University Programme. Other findings showed that out of 874 DLs enrolled differentially for the respective academic sessions, but whose responses were pooled, 704 (80.5%) argued that they would prefer to have a programme that does not include writing research dissertation for submission. Another 759 (86.8%) also said that it were better if dissertation would be made as part of a regular course for instruction and examinable only at the end of academic session while 91.9% reasoned that dissertation should be made optional respectively. Furthermore, while only 16.1% of the participants affirmed to the item-statement, that '*they like research methodology*', 83.9% however responded otherwise; and similarly, another 91.4% said that they detest statistical methods.

Post-intervention outcome:

Hypothesis one

The first hypothesis has it that the DLs' research prowess will not be significantly different following their exposure to the combined effects of the RT, REBT, AM and the CT (i.e. the non-intervention group). The findings which utilized ANCOVA for its computation however showed that it was statistically significant having the main treatment effects

as [$F(4,1052)=7.52; P<0.05$]. Furthermore, the group Mean Differential-Scores equally indicated that the participants exposed to the RT ($X=71.23$) demonstrated major psychotherapeutic gains with more evidence shown in the acquisition of research skills. Other result details showed that the REBT ($X=69.56$), AM ($X=54.31$); and the CT ($X=48.02$) respectively, also indicated the treatment gains even though, the observed statistical details reflected the order of their psychotherapeutic importance and or marginal advantages. Following these computed details and results therefore, it could therefore be argued that psychotherapies would, undoubtedly be beneficial if they are well harnessed to facilitate learning and or research prowess.

A further re-confirmation was under taken with the computational details of the Bonferroni correction method which compared the individual Mean-scores within each cell. Both the least-significant difference test n and Bonferroni are two of the examples of post hoc statistics; and as a coincidence, the cell comparison showed that the means were all significant across the cell levels (<0.05). The information which the psychotherapeutic outcome summarizes arguably support the assertion that, using the CDL and or Blended method of instruction, to induce expected learning and or DLs research prowess has multiplier effects. Directly related to this was the consequence of the BTS which were encapsulated in the applied psychotherapy in predicting outcome in professionals' behaviour following the intervention. The findings also corroborated other studies (Betts, Zau & Rice, 2003; Lea, Stephenson & Troy, 2003; O'Neill & McMahon, 2005) that found the marginal utility of psychotherapy very relevant as behaviour modification device. Thus, in stimulating adequate academic and or research behaviour, even within the adaptation of either trans-disciplinarity (otherwise, the CDL) and the Blended Method (BM), at the pre-intervention stage, assessing to know, the entry behaviour of the DLs is germane to the use and application of adequate psychotherapy (or BTS) with the consequent predictability of their research empowerment. When learners are assessed for what they are, their differential-emotionality would be ascertained easily, while the mentor and or the facilitator then knows how to arrange learning strategies/materials to boost expected research behaviour (i.e. information search, access, and application, etc) as it were, and especially for engendering reliable research output as well as academic competences.

Hypothesis Two

In examining the psychotherapy outcome as indicated in the second hypothesis, the participants were exposed to either the combined intervention effect of RT/AM with the AM alone and, or the REBT/AM and AM alone as well as RT/REBT. With the use of the ANCOVA statistical method, the findings which utilizes the Fisher's value showed that the outcome was statistically significant with [$F(2,1054)=5.07; P<0.05$]; [$F(1,1055)=3.61; P<0.01$] and [$F(2,1054)=9.70; P<0.05$] for all the dimensionalities. The outcome of additional computation also showed that the combined effects of RT/AM ($X=73.43$), REBT/AM ($X=69.91$) and RT/REBT ($X=79.34$) were more useful in terms of the skills that the participants gained as compared to other instances where, participants were exposed to single psychotherapy. For the participants who were exposed to the combine treatment effect, only the group which had the RT/REBT was more prominent in developing adequate research behaviour in the professionals as ably supported by the choice and construction of feasible research topics, review of relevant literature, selection and application of appropriate research design as well as quantitative techniques among the DLs. By implication, and as evident in the computed statistical details, the DLs' academic problem in research prowess was ably facilitated. It was also noticed that the maturation effect of the participants who were in the non-intervention group (CT) with Mean-score of 48.02 did not boost their research potentialities.

In juxtaposing the above findings with other related studies, and as it corroborated in particular, that on Seligman (1995), the differential-selection and application of psychotherapies was efficacious for prompting and directing academic behaviour. Academic behaviour in DHE and or the ODL (otherwise, HE generally) can be an all-evolving term that includes skill acquisition for academic credibility and performance (including its marginal advantages), research prowess and its sustainability as well as professional competences. Annexing the benefits of trans-disciplinarity therefore, learners can be instructed on the effects of collaboration, interconnectivity of disciplines as well as that which implicate the outcome of shared-knowledge.

Hypothesis Three

Finally, the third hypothesized statement which says that, exposing the DLs to the individual psychotherapies with a concomitant research prowess will not be significantly different was tested by using the student-t statistical method at the 0.05 alpha levels. The computed details (<0.05) indicated that its findings were statistically significant; and thus, its findings further support the relevance of psychotherapies and, or BTS for boosting learners' emotionality and its consequent impact in ameliorating learning/research deficiencies and or limitation, and the concomitant boost to research prowess via different application of behaviour modification strategies. As argued by Osiki (2008abc) and which earlier studies (Deacon & Abramowitz, 2004; Barlow, 2002; Seligman, 1995) had equally confirmed, learners'

potential to achieve academically, with a sustainable regularity in academic performance and or credibility, professional behaviour as well as impactful sub-regional research, is a direct function of their emotionality. Thus, the continue dividends of psychotherapy for behaviour modification, with a concomitant effects for positive holistic living, which also exemplifies academic concern (including research), has a wide empirical evidences (Weisz, Jensen-Doss & Hawley, 2006).

CONCLUSION

Using the keywords search to empower teacher professional behaviour particularly at the ODL and or DHE research involves training of the learners in relevant skills. Such skills among others, include methods for identifying critical terms in a study (otherwise, a research topic) with the concomitant selection of alternative word-meanings and appropriately applying the terms in any of the search engines to facilitate access, organization and utilization of needed information whether for academic and or professional responsibilities. Adequate utilization of keyword search to regularly beef up research perspective is arguably therefore, the product of effective mentor-protégées' relationship which, without doubt, also constitute a by-product of their emotionality. Applying the pep talks to prop up the learners' emotionality especially subsumed psychotherapeutically can be effective to stimulate effective outcome in mentor-mentee instructional activities and or training in the use and application of keywords search in ODL.

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