The Effect of Tacit Knowledge for Effective Teaching and Learning Processes among Lecturers at the Delta State University, Abraka

Rexwhite Tega Enakrire
Delta State University, Abraka, Nigeria, enakrire@yahoo.com

Ndubuisi Gloria Uloma
Delta State University, Abraka, Nigeria

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Rexwhite Tega Enakrire
Department of Library & Information science
Delta state University, PmB 1
Abraka, Delta State, Nigeria

Ndubuisi Gloria Uloma
Department of Library & Information science
Delta state University, PmB 1
Abraka, Delta State, Nigeria

Abstract

The study was carried out to look at the effect of tacit knowledge for effective teaching and learning processes among lecturers at the Delta State University, Abraka. The review of related literature were sourced and discussed in detail under the following concepts: concepts of tacit knowledge, history of tacit knowledge, types of ICTs/technologies used by lecturers for tacit knowledge sharing, the use of tacit knowledge by lecturers in their teaching and learning processes, benefits of tacit knowledge for effective teaching and learning process, factors militating against the effective use of tacit knowledge among lecturers. A descriptive survey research design was used for the study, One hundred twenty lecturers from the department of Library and Information Science, Guidance and Counseling, Sociology and Psychology, Zoology and Biochemistry were used as a sample size a questionnaire was used to collec data. A simple percentage was used for analysis of data. The research findings revealed that not all lecturers are aware of what tacit knowledge is in Delta State University, there is need for faculties and departments to organize staff/lecturers training programme to boost lecturers tacit knowledge, there are infrastructures to harness tacit knowledge, that tacit knowledge is a tool for effective teaching and learning process, that fear of plagiarism has made some lecturers to keep their knowledge to themselves, etc. Based on the findings, recommendations were made to increase the level of usage of tacit knowledge for effective teaching and learning processes in Delta State University, Abraka. There is need for staff training programme in various departments to enable lecturers enhance on their tacit knowledge, the lecturers should make use of infrastructure like internet, computer, critical thinking etc to improve on their tacit knowledge, the lecturers should teach with their tacit knowledge as it will enable the students learn and understand faster than just reading from textbooks.

Introduction

Educational discourse generally presumes that knowledge refers to facts and objective information.The field of knowledge management takes a broader view of knowledge, including subjective information, experience, and tacit understanding.

Tiwana (2002) defines knowledge as a "fluid mix of framed experience, value, contextual information, expert insight and grounded intuition that provides an environment and frame work for evaluating and incorporating new experiences and information." The literature of knowledge management distinguish two major types of knowledge: explicit and tacit (Polanyi, 1996; Rumizen, 2002). Tiwana states further that,

> While explicit knowledge encompasses knowledge which can be stated and is "objective," tacit knowledge may not be able to be explicitly stated or written down and is more subjective. Tacit knowledge includes judgment, experience, insight, rules of thumb, intuition. Experts and professionals generally practice primarily with tacit knowledge. Thoughtful writing and teaching depend heavily on tacit knowledge.

Wikipedia (2007) defines tacit knowledge as "knowledge that is difficult to transfer to another person by means of writing or verbalizing." People are not often aware of the tacit knowledge they possess or how it can be valuable. Effective transfer of tacit knowledge requires personal contact and trust. Tacit knowledge consists of habits and culture that we do not recognize. In knowledge management, tacit knowledge refers to things known by an individual that are difficult to communicate to the rest of an organization. Further, "knowledge that is easy to communicate is called explicit knowledge. The process of transforming tacit knowledge into explicit knowledge is known as codification or articulation."

Wikipedia sums up tacit knowledge by saying:

> The tacit aspects of knowledge cannot be codified, but can only be transmitted via training or gained through personal experience. Tacit knowledge has been described as "know-how" as opposed to "know-what" (facts), "know-why" (science) or "know-who" (networking). It involves learning and skill but not in a way that can be written down. According to the business dictionary, tacit knowledge is the unwritten, unspoken, and hidden vast store house of knowledge held by practically every normal human being, based on his or her emotions, experiences, insights, intuition observations, and internalized information. Tacit knowledge is integral to the entirety of a person's consciousness, is acquired largely through association with other people, and requires joint or shared activities to be imparted from one to another. Like the submerged part of an iceberg it constitutes bulk of what one knows, and forms the underlying framework that makes explicit knowledge possible.

Statement of the Problem

Tacit knowledge is the knowledge which every human being possesses for everyday activities but some of the difficulties encountered in its use in education include: lack of awareness of tacit knowledge among lecturers, lack of staff training in tacit knowledge among lecturers, inadequate infrastructure for harnessing tacit knowledge among lecturers, selfish interest of lecturers in knowledge sharing/tapping, and fear of plagiarism among lecturers. It is against these that this research tend to investigate the effect tacit knowledge has in teaching and learning process among lecturers at Delta State University, Abraka, Nigeria

Research Questions

In line with the identified problems above, the following research questions were raised:

- To what extent are lecturers aware of tacit knowledge?
- To what extent are lecturers trained in tacit knowledge?
- Are there adequate ICT infrastructures for harnessing tacit knowledge among lecturers?
- Why are lecturers selfish in knowledge sharing/tapping?

- Why is there a fear of plagiarism among lecturers?

Purpose of the Study

The purpose of this study therefore is to point out the effect of tacit knowledge and how it has effectively helped lecturers in their teaching and learning processes at the Delta State University, Abraka.

- To create an awareness of tacit knowledge/sharing among lecturers.
- To determine the importance of effective and efficient staff training in tacit knowledge among lecturers.
- To point out the need for adequate infrastructures for harnessing tacit knowledge among lecturers.
- To investigate the extent of selfish interest of lecturers in knowledge sharing/tapping.
- To examine the fear of plagiarism among lecturers.

Significance of the Study

This study becomes significant to lecturers, consultants, students, researchers, etc., at the Delta State University, Abraka and beyond because it will enable them to explore and improve on their potentialities in discharging their teaching and learning processes at various capacities. It will also appropriate other measures on how they can device way to buttress what they possess by research writing and attending of conferences and workshops. It will equally serve as a tool for other researchers who might want to embark on similar research.

The Concept of Tacit Knowledge

The field of knowledge management has its roots in the late but the emergence of the knowledge economy has led management to consider the expertise and knowledge of employees as strategic resources that can be effectively handled by knowledge management.

Alexandropolou, et al. (2008) observe that knowledge management has long existed within higher education, "if we consider that tacit knowledge (know-how and learning embedded within the minds of the people in the university) has been converted into explicit (documented information that can facilitate action) for at least a century, through writing scientific articles and the setting up of libraries from preserving institute's literature. Universities' most valuable resources are their researchers, managers and students within their organizational processes and networks."

Data-Information-Knowledge

The concept of knowledge must be separated from related concepts such as data and information. Data are observations or facts, and are relatively meaningless until they have been processed and analyse; The result of this processing or analysis is meaningful information (Bocij et al; 2003). Bocij et al (2003) consider knowledge to be a further level of sophistication in this process. They stated that "knowledge can be regarded as the next level of sophistication or business value in the cycle from data through information to knowledge" (Bocij et al; 2003). Many people consider knowledge to be roughly the same as (technological) ideas, but the concept of knowledge also includes skills (CPB, 2002).

Knowledge is often divided into codified and tacit knowledge. The concept of tacit knowledge originates from the work of Michael Polanyi. For the purpose of this research we consider codified knowledge roughly the same as information, and tacit knowledge as knowledge that has not been codified. Knowledge and information are complementary; one visually needs some tacit knowledge to understand information. This implies that, although information can cross boundaries in a split second using internet technologies, one still needs a less mobile human expert with tacit knowledge to interpret the information (CPB, 2002).

The WWW Virtual Library on knowledge management (2005) posited that "information can be considered as a message. It typically has a sender and a receiver. Information is the sort of stuff that can, at least potentially, be saved onto a computer. Data is a type of information that is structured, but has not been interpreted". It also went further to say that "knowledge might be described as information that has a use or purpose. Whereas information can be placed on a computer, knowledge exists in the heads of people. Knowledge is information to which intent has been attached".

Nonaka and Takeuchi (1995) describe tacit knowledge as a, "non-linguistic, non-numerical form of knowledge that is highly personal and context specific and deeply rooted in individual experiences, ideas, values and emotions." Furthermore, they distinguish between "technical tacit knowledge, meaning skills or concrete 'know-how', and cognitive tacit knowledge which refers to imagined schema, beliefs and mental models that are taken for granted."

Hildreth and Kimble (2002) argue that "the common approach to try to convert tacit knowledge to explicit knowledge, and then handle it using the 'traditional' approach is flawed. Some knowledge simply cannot be captured. A method is needed which recognizes that knowledge resides in people; not in machines or documents." They argue that knowledge management is "essentially about people and the earlier technology driven approaches, which failed to consider this, were bound to be limited to their success." They suggest as a practical way forward to use "communities of practice, which provide an environment for people to develop knowledge through interaction with others in an environment where knowledge is created nurtured and sustained." Other systems via which organizations or institutions try to develop or capture tacit knowledge include "special portals, search engines, resident experts and documentation systems for experts."

Tacit knowledge has been defined as one's personal, internal or interior knowledge as opposed to the external, physical knowledge that has been written down or recorded as an artifact. Gourlay (2002) presents a clear definition of tacit knowledge as "a form of knowledge that is highly personal and context specific and deeply rooted in individual experiences, ideas, values and emotion". Nonaka and Takeuchi (1995) believe that unless shared knowledge becomes explicit, it cannot be easily leveraged by an organization.

Tacit knowledge "resides in the human mind, behaviour, and perception" (Duffy, 2000); it refers to "hunches, intuitions and insights" (Guth, 1996); it is "personal, undocumented, context sensitive, dynamically created and derived, internalized and experience based" (Duffy, 2000); it is "difficult to formalize and therefore difficult to transfer or spread. It is mainly located in peoples' hearts and heads" (Beijerse, 2000).

The History of Tacit Knowledge

Knowledge Management (KM) emerged as a scientific discipline in the earlier 1990s. Wikipedia states that

> It was initially supported solely by practitioner, when Scandia hired Leif Edvinsson of Sweden as the world's first chief knowledge officer (CKO). Hubert Saint-Onge (formerly of CIBC, Canada), started investigating various sides of KM long before that. The objective of CKOs is to manage and maximize the intangible assets of their organizations.

Types of ICTs/Technologies used by Lecturers for Tacit Knowledge Sharing.

Sharing tacit knowledge is an important component of the knowledge management. Tacit knowledge exchange or sharing between lecturers and students could be enhanced through the use of information and communication Technology (ICT) such as electronic networks, e.g., Internet, intranets, and group support systems. In these setting lecturers and students exchange knowledge via:

    1.   Electronic mail (e-mail)

2. Online discussions
3. Chat sessions
4. Video conferencing
5. Word press
6. Google buzz
7. Facebook
8. Twitter
9. Open Diary
10. Expressionengine
11. Live Journal
12. Vox
13. TypePad
14. Instant Messaging
15. Telephone
16. Vlogs
17. Fmylife
18. Geoloqi
19. Kickstarter
20. Netvibes

Although technology promises new ways of promoting knowledge sharing, educators' reactions to it have been mixed. Computers are creating new opportunities for writing, collaborating and sharing knowledge. Technology is influencing how people read, write, listen and communicate (Song, 2009). Historically, there have been a number of technologies facilitating knowledge management practices in the organization, including expert systems, knowledge bases, various types of information management, software help desk tools, document management systems and other IT systems supporting organizational knowledge flows. The advent of the Internet brought with it further enabling technologies, including e-learning, web conferencing, collaborative software, content management systems, wikis, blogs, and other technologies. Each enabling technology can expand the level of inquiry available to an employee, while providing a platform to achieve specific goals or actions. The practice of KM will continue to evolve with the growth of collaboration applications, visual tools, and other technologies.

The Use of Tacit Knowledge by Lecturers in Their Teaching and Learning Processes

This topic is treated by Saljo (1979), Gow and Kember (1993), Mclean and Bullard (2000) Nyquist and Wulff (1996), Neumann (2001), Becher (1989), (Becher and Trowler (2001), Schon (1987), and (Finlay, 2001).   Trivedi (2007) outlines some barriers to knowledge management. Galbreath (2000) discusses collaboration and trust. Nonaka, Von Krogh, and Ichijo (2000) observe that a climate that fosters trust, among employees is one of the most important conditions for collaboration and knowledge-sharing.

Methodology

This research design adopted for this study was descriptive survey research method which tends to describe the effect of tacit knowledge for effective teaching and learning processes among lectures of Delta State University, Abraka. The variable will enable us to know the extent to which tacit knowledge has helped lecturers in their research and teaching profession and the population consists of lecturers of Library and Information Science, Guidance and Counseling, Sociology and Psychology, Zoology and Biochemistry departments at the Delta State University, Abraka. The population therefore is 120 staff. The sample size is drawn from the lecturers of the various departments: Library and Information science, Guidance and Counseling, Sociology and Psychology, Zoology and Biochemistry departments of Delta State University, Abraka. The purposive sampling technique was used to carry out this research and 120 (one hundred and twenty) lecturers were the respondent. The instrument used to gather data for this research work is the questionnaire which was personally administered by the researcher by hand to respondents. The simple percentage and frequency counts statistical tool was used to interpret the data collected from respondents.

Analysis and Interpretation of Findings

Table 1: Gender of the Respondents

Gender	Reponses	Percentage %
Male	70	58
Female	50	42
Total	**120**	**100**

The sex distribution of the respondents in table 1 shows that male have the highest percentage of 70 (58%) while that of female is 50 (42%). This shows that majority of the respondents were male.

Table 2: Work Experience of Respondents

Working Experience	Responses	Percentage %
1-5years	20	16.7%
6-10years1	70	58.3%
11years and above	30	25
Total	**120**	**100**

The data in table 2 shows that 20(16.7%) of the respondents have a working experience of 1-5years, 70(58.3%) of them has 6-10years experience, while 30 (25%) of them have spent 11 years and above as lecturers. This result shows that the respondents are well experience in the teaching and learning process and can be able to answer questions regarding tacit knowledge.

Table 3: Department Distribution of Respondents

Department	Responses	Percentage %
Library and Information Science	16	13.3
Guardians and Counseling	21	17.5
Sociology & Psychology	32	26.6
Biochemistry	31	25.8
Zoology	20	16.7
Total	**120**	**100**

Table 3 above shows that 16(13.3%) of the respondent are from the department of Library and Information Science, 21(17.5%) are from Guidance and Counseling, 32(26.6%) from Sociology and Psychology another 31(25.8%) are from the department of Biochemistry, and the last department is zoology with 20(16.7%) respondents. This result shows that sociology and psychology responded more while library and information science has the least respondents.

Research Question One: To what extent are lecturers aware of tacit knowledge?

Table 4: Lecturers awareness of tacit knowledge.

Determinant	Yes	%	No	%	Total	Total%
Do you know what tacit knowledge is as a lecturers?	92	77	28	23	120	100
Do you lecture with your tacit knowledge as a lecturer?	116	97	4	3	120	100
Do you see tacit knowledge as a tool for effective teaching and learning process as a lecturer?	120	100	0	0	120	100

The above table shows that most lecturers know what tacit knowledge is and they lecture with their tacit knowledge. From the analysis, it is glaring that tacit knowledge is a tool for effective teaching and learning process among lecturers of Delta State University, Abraka as shown by the records and percentages of yes compared to number from the table (i) 92 (77%) of the respondents says that they know what tacit knowledge is while 28(23%) of the respondents says they don't known what it is/they've not heard of it before. In table (ii), 116(97%) of the respondent says they lecture with their tacit knowledge while 4(3%) of the respondents says they don't lecture with their tacit knowledge. finally, 120(100%) of the respondents in table (iii) sees tacit knowledge as a tool for effective teaching and learning process while 0(0%) says No.

Research Question Two: To what Extent Are Lecturers Trained in Tacit Knowledge?

Table 5: Staff Training in Tacit Knowledge among Lecturers?

Determinants	Yes	%	No	%	Total	Total%
Does your department organize staff training programme to assist lecturers improve on their tacit knowledge?	10	0	120	100	120	100
Can you mention some of the staff training programme organized by your department?	0	0	120	100	120	100

The above table 5 shows that no staff/lecturers training programme are organized in any department to improve the tacit knowledge of the lecturers as responded by the respondents. In table (i), 0(0%) says staff training programme is organized in their departments while 120(100%) of the respondents says that no staff training programme is organized in their departments to assist lecturers improve on their tacit knowledge. From table (v) 0(0%) of the respondents can mention some of the staff training programme while 120(100%) of the respondents says they don't know any staff training programme that is worth mentioning in their departments. From the above table, it is evident that a lot of effort needs to be made by the various departments and faculties to train lecturers on how to use and improve on their tacit knowledge to help them teach effectively and efficiently.

Research Question Three: Are there Adequate Infrastructure for Harnessing Tacit Knowledge among Lecturers?

Table 6: Infrastructure for Harnessing Tacit Knowledge

Determinant	Yes	%	No	%	Total	Total%
As a lecturer, do you improve on you tacit knowledge?	117	97.5	3	2.5	120	100
Do you have adequate infrastructure for harnessing your tacit knowledge?	80	67	40	33	120	100
Please mention some of the infrastructures for improving on your tacit knowledge	Internet Computer Critical thinking Reading discipline-oriented Books and journals Seminars Workshops					

The above table shows that most lecturers work hard to improve on their tacit knowledge in Delta State University Abraka. Table (vi) shows that 117(97.5%) of the respondents improve on their tacit knowledge while 3(2.5%) of the respondents feels it is not important to improve on their tacit knowledge. From table (vii) 80(67%) of the respondents says they have adequate infrastructure for harnessing their tacit knowledge while 40(33%) of the respondents says there is no adequate infrastructure to help them improve on their tacit knowledge.
Finally, table (viii) shows some infrastructures as stated by the respondents in the above table.

Research Question Four: Why the fear of Plagiarism among Lecturers of their various Knowledge?

Table 7: Fear of Plagiarism

Determinant	Yes	%	No	%	Total	Total %
Do you share your tacit knowledge with others?	100	83	20	17	120	100
Do you receive proper acknowledgement for every of your knowledge cited in other peoples work?	70	58	50	42	120	100

Table 7 shows that the fear of plagiarism has made some lecturers not to share the knowledge they have inside of them. From table (ix), 100 (83%) of the respondents says they share their tacit knowledge with others while 20(17%) of the respondents don't. Table (x) shows that's 70(58%) of the respondents says that they receive proper acknowledgement for every of their knowledge cited in other people's work while 50(42%) of the respondents says no proper acknowledgement have been given to them.

Research Findings

In the course of this research, the following were reached.
- That not all lecturers are aware of what tacit knowledge is in Delta State University, Abraka.

- There is need for faculties and departments to organize staff/lecturers training programmes to boost lecturers' tacit knowledge.
- That there are infrastructures to harness tacit knowledge.
- That tacit knowledge is a tool for effective teaching and learning process.
- That fear of plagiarism has made some lecturers to keep their knowledge to themselves.

Recommendations

In view of the findings, the following recommendations were made:
- There is need for staff training programmes in various departments to enable lecturers enhance on their tacit knowledge. Training programmes like conferences, seminars, symposiums, short courses, group interactions, workshops should be organized.
- The lecturers should make use of infrastructures like internet, computer, critical thinking and reading discipline-oriented books and journals to improve their tacit knowledge.
- The lecturers should teach with their tacit knowledge, this will enable the students learn and understand faster than just reading from textbooks.

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