Knowledge Management Practices as Correlates of Teachers' Professional Competences and Instructional Task Performance in Secondary Schools in Nigeria

Akachukwu Ignatius NWABUEZE & **Chioma Ezinwanne CHUKWUJI**

Abstract
This study investigated knowledge management practices as correlates of teachers' professional competences and instructional task performance in secondary schools in Enugu State, Nigeria. Based on the objectives, six research questions and six hypotheses guided the study. The study adopted a correlational survey design. The population of this study comprised all the 7,790 principals and teachers in 286 public senior secondary schools in Enugu State, Nigeria. The sample size for this study was 425 principals and teachers. The instruments used for data collection were Questionnaire titled: Knowledge Management Practices Questionnaire (KMPQ); Teachers' Professional Competences Questionnaire (TPCQ); and Teachers' Instructional Task Performance Questionnaire (TITPQ). The instruments were validated and the reliability established using internal consistency through Cronbach Alpha method, which yielded 0.91 for KMPQ, 0.89 for TPCQ, and 0.94 for TITPQ. In analyzing the data, linear regression was used to answer research questions one to four, while multiple regression analysis was used to answer research questions five and six. Hence, t-test associated with linear regression was used to test hypotheses one to four, while Analysis of Variance (ANOVA) associated with multiple regression was used to test hypotheses five and six at 0.05 significant level. The findings revealed that, there is a significant and very high relationship between knowledge creation exercises and teachers' professional competences in secondary schools. There is a significant and very high relationship between knowledge creation exercises and teachers' instructional task performance in secondary schools. There is a significant and very high relationship between pedagogical content knowledge and teachers' professional competences in secondary schools. There is a significant and very high relationship between pedagogical content knowledge and teachers' instructional task performance in secondary schools. There is a significant and very high relationship between knowledge management practices and teachers' professional competences in secondary schools. There is a significant and very high relationship between knowledge management practices and teachers' instructional task performance in secondary schools. Based on the findings, the researchers recommended that, teachers should possess the skills of writing lesson notes, encouraging the students to improve their skills through knowledge transfer, and help in reducing errors while teaching the students through knowledge management and professional competences. Teachers should be versatile in using practical applications to support the theoretical assumptions during teaching, and contribute maximally to knowledge advancement during classroom instructions.

Keywords: Knowledge management, professional competences, teachers, instructional task performance, secondary schools

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INTRODUCTION

Education industry operates as a medium of transforming the young ones for increased participation in nation building and global competitiveness. It serves as a point where people acquire what is desirable for individual growth and societal development. It enhances success in the development of every man through knowledge dissemination. Knowledge is all about the understanding and skills obtained through experience or course of study. It is also, all about having concepts, becoming familiar with them, being aware of the concepts that equip an individual with new knowledge, explicit skills, innovative ideas, creative facts through academic instructions for personal growth and societal development (Edikpa, Nwabueze & Iremeka, 2018). It is equally referred to explicit idea on academic concepts for individual and group academic improvement. It is obvious that knowledge could be implicit referring to the practical skills or explicit knowledge based on theories, which may be formal or informal. Knowledge is all about epistemology in philosophy (Plato, 1957). Knowledge is an instrument designed to acquire relevant skills based on theory and practice, which can be gained within the four walls of educational institutions when properly managed.

However, knowledge acquisition in schools involves complex cognitive processes, ideas, skills, perceptions, communication principles, information, and reasoning for institutional development. Knowledge is closely linked to the process of developing new ideas relevant to knowledge processing for individual and group performance in education industry (Edikpa, Nwabueze & Iremeka, 2018). This is why educational organizations are beginning to understand and appreciate knowledge as the most valued asset in the emerging competitive environment. Knowledge management (KM) involves activities such as acquisition, creation, packaging or application of knowledge for productivity (Edikpa, Nwabueze & Iremeka, 2018). The objective of Knowledge Management is to improve the quality of contributions staff make for effective task performance as well as help them make sense of the context within which the organization exists, take responsibility, cooperate and share what they know effectively, challenge, negotiate and learn from others (Chu, Wang & Yuen, 2011). Educational institutions have the potential to learn and integrate new knowledge into specific practices, so that, the knowledge becomes accessible when needed. Knowledge management can be used as a strategy by schools to improve competitive performance.

Knowledge management has received a lot of scholarly and managerial attention in the 1990s. It is the explicit and systematic management of vital knowledge and its associated processes of creating, gathering, organizing, diffusing, use and exploitation within the education system (Madumere-Obike & Nwabueze, 2012). It requires turning personal knowledge into corporate knowledge that can be widely shared throughout an organization and appropriately applied. Knowledge management is the process through which organizations generate value from their intellectual and knowledge-based assets as well as staff productivity. Knowledge management is concerned with the exploitation and development of the knowledge assets of an institution with a view to further the aim and objectives of such institution. However, knowledge sharing, knowledge production, knowledge transfer and knowledge use are all knowledge management. Knowledge use occurs whenever there is knowledge sharing and transfer. Knowledge processing is knowledge production and knowledge integration (Madumere-Obike, Ukala & Nwabueze, 2015).

The Knowledge management principles, if applied to the administration of education will enhance the quality of teachers' task performance. It is used to describe everything from the application of new technology to harnessing of the intellectual capital of an organization (Madunere-Obike & Nwabueze, 2012). Knowledge management in education is a monograph that makes eminent sense; a wonderful combination of good intuition, practical

know-how, and a feel for what might be best described as a set of emerging theories focusing on the effective management of knowledge in educational institutions (Nwabueze, 2011). The author further states that, knowledge management in education supplies the framework needed to understand how good assessment practice improves effective information management system for instructional task performance among teachers. Information practices and learning strategies known as knowledge management are gaining acceptance in the field of education (Madumere-Obike & Nwabueze, 2012). At most basic level, knowledge management can be described as a set of practices that helps to improve the use and sharing of data and information in decision-making. Knowledge Management can be used as an alternative strategy by schools to equip teachers with relevant skills to face the challenges of instructional task performance for improved productivity. It can facilitate acquisition, sharing and application of teacher knowledge in school, especially the professional knowledge, experiences and competences of teachers. Competences are the abilities, qualities, strengths and skills required for the success of the employee and the organization.

Competence is a set of defined behaviours that provide a structured guide enabling the identification, evaluation and development of the behaviours in individual employees. Competences can be defined as knowledge, skills, attributes and behaviuor traits required for individual and organizational success (Butler, 2006). Competence is best described as a complex combination of knowledge, skills, understanding, values, attitudes and desires which can lead to effective, embodied human action in an organization, especially in a particular domain (Deakin, 2008). Eze and Somma (2005) are of the opinion that, there is a positive relationship between knowledge management practices and teachers' task performance, as well as professional competences of teachers and task performance for the achievement of educational

goals and students' productivity. This would help the teachers maintain strong commitment to reaching their set goals and persevere with resilience in the face of difficult situations. Professional competences and technical tasks of the teachers are very important for the development of teaching subjects' curriculum contents and instruction delivery.

There is no doubt that teacher professional competencies are very important factors that determine teachers' task performances in education industry through knowledge management practices. It is on the professional competences of the teachers that knowledge transfer exercise, teachers' task performance and the success of educational endeavours depend. The development of teachers' professional competences is geared towards the improvement of knowledge and skills of the teaching staff in support of current role, which prepare them for future role. The components of teaching staff competences may include: being able to participate in scientific inquiry, having research skills, possession of practical knowledge, interpersonal relations skill, good communication and presentation skills in teaching (Nwabueze, 2018). Teaching competences according to Uche and Nwabueze (2009), apply to teachers who have sufficient knowledge and understanding to fulfill their responsibilities and perform their tasks as expected.

The knowledge, skills and commitment of teachers as well as the quality of school leadership are the most important factors in achieving high quality educational outcomes. Competences secondary school teachers may need include: having specialist knowledge of the subject(s) they teach, and the necessary pedagogical skills to teach them. Others include: teaching to heterogeneous classes, making effective use of ICT, and helping students acquire transversal competences. However, there is need to promote certain key professional values and attitudes amongst teachers such as: reflective practice, autonomous learning, engagement in research and innovation, collaboration with colleagues and parents, and an involvement in the development of

the whole school to improve teachers' task performance (Madumere-Obike, Ukala & Nwabueze, 2015).

Teacher competences enable teachers to meet complex demands by mobilising educational resources in context, and deploying them in a coherent manner. It empowers the teacher to act professionally and appropriately in a classroom situation (Koster & Dengerink, 2008). It helps ensure teachers' undertaking of tasks effectively (achieving the desired outcome) and efficiently (optimizing resources and efforts). A competent teacher imparts knowledge, helps the learners acquire skills and some technical know-how, transmits culture and serves as means of getting learners to absorb needed attitudes, motivates his learners and makes them willing to learn as well as develop interest in education. It helps the teacher to explore, illustrate and ask questions, use teaching aids as well as manage students' disruptive behaviour and hold discussions with learners. A professionally competent teacher develops qualities such as curiosity, originality, initiative, cooperation, perseverance, open-mindedness, self-criticism, responsibility, self-confidence and independence (Madumere-Obike, Ukala & Nwabueze, 2015). Only when the teacher is capable of understanding and identifying with the child, that it can be said that teaching is indeed, a success. When this is accomplished, the students become more engaged and be able to think and utilize whatever is taught appropriately in classroom situations.

However, teachers' involvements in professional development programmes help them become competent in the discharge of their tasks (instructional delivery). Tasks expected of teachers for effective instructional delivery may include: preparation of lesson notes to master the instructional points during teaching, writing of scheme of work to make the delivery of instructions more effective, periodic assessment of students to ascertain if they are responding to knowledge transfer exercise, researching with teaching and

learning materials for knowledge updates, improvisation and use of instructional materials to be modern with current method of delivering instructions, giving the students exercises and assignments for knowledge building, and regular feedback and motivation of students through effective instruction for academic building and school development. All these are expected teacher's task and need to be adequately performed for enhanced school productivity. Performance of these tasks indicates that the teachers are professionally competent leading to effective instructional delivery in the school system (Modebelu, 2015). Teachers have to perform these tasks creditably for enhanced instructional delivery, students' productivity and school development.

Instructional task performance is very important in knowledge facilitation for organizational learning. It is the duty of academic staff of any institution to assist students performing their functions through quality teaching for enhanced academic inquiry and educational process. Appropriate knowledge management in schools among staff and students help them function efficiently and as well suggest useful contribution for societal development. Teachers' instructional task performance indicators/traits as highlighted by Nwabueze (2016) include staff involvement in preparing his lessons, delivering the lesson, and preparing the students for internal and external examinations. Task Performance is a working process which occurs when an assigned person or group of persons effectuates a task's plan; this refers to a manner in which they realize the work which was projected for a task. Competent teachers discharge their task effectively than the incompetent ones. They carry out their duties with confidence, skills and impart new knowledge into the learners.

Theoretical Framework

Theory of Knowledge Management Framework:

Theory knowledge management framework was propounded by Rodrigues and Obanya in 2005. They suggested that developing a suitable

knowledge management approaches necessitate knowledge management implementation. Developing knowledge management strategy in secondary schools necessitated the identification of absolute variables used in knowledge management principles. Rodrigues and Obanya describe the variables used in knowledge management principles as follows: leadership supports by school administrators, new technology facilities, knowledge dissemination, sharing and transferring of culture, as well as production function. This theory is very relevant to the study as it identifies the key factors that are important in the creation, transfer, sharing and production of skilled personnel in the school system.

Knowledge management overarching theory

Knowledge management overarching theory was propounded by Stankosky in 2005. This theory stated that, there was a growing desire by academics and practitioners alike to help achieve individual and organizational success with different sets of tools and processes linked to knowledge management in different contexts and situations. There was an expanding need to train new practitioners, yet the same characteristics that supported success in "seasoned" practitioners who could draw on previous knowledge presented barriers and difficulties for new practitioners entering the field. Knowledge management practitioners who do not have a framework to use as a guide for orchestrating their efforts will very likely waste a great deal of time and energy. He added quickly that, the framework must be based on the reality of the context in which they operate.

Statement of the Problem

Educational industry operates in environments characterized by increased need for knowledge to create and sustain competitive differentiation. Secondary education in Nigeria is designed to prepare individuals for useful living and higher education practices. These goals appear not attainable as the products of secondary schools are currently accused of poor academic performance and poor learning in Nigeria generally, and Enugu State in particular. These flaws could be due to inadequate management of knowledge principles and practices among teachers indicating ineffective instructional delivery in the system. This on the other hand, seems to be caused by teachers' poor involvement in professional competent programmes leading to inadequate task performance in the management of knowledge and delivery of academic instructions in secondary schools in Enugu State, Nigeria. Improper instructional delivery and inadequate task performance on the part of these teachers may be due to lack of teachers' involvement professional competent programmes which impede the accomplishment of the expected tasks. It therefore, appears that teachers do not possess the professional competent skills needed for their task performance so as to achieve effective instructional delivery in secondary schools due to their poor involvements in competency programmes in the Country. Due to these poor involvements of teaching staff in professional competency programmes, they seem to lack good communication skills, time management skill, presentation skill, and interpersonal relation skill in carrying out instructional practices in the schools. This may be because, they lack the zeal with poor motivational strategies to be involved in professional development programmes, which retard the already acquired knowledge and skills as well as academic growth.

In order for institutions to succeed in highly dynamic business environment, it is critical that they embrace and institutionalize Knowledge management in their academic activities. Institutions therefore, need to be cognizant of the factors that influence the success of institutionalization of Knowledge Management Initiatives. Furthermore, knowledge management is taking centre stage in educational management, especially with the emergence of the knowledge economy. This study therefore, investigates knowledge management practices as correlates of teachers' professional

competences and task performance in secondary schools in Enugu State, Nigeria.

Purpose of the Study

The aim of this study is to investigate knowledge management practices as correlates of teachers' professional competences and instructional task performance in secondary schools in Enugu State, Nigeria. Specifically, the objectives are to:

1. ascertain the relationship between knowledge creation exercise and teachers' professional competences in secondary schools in Enugu State, Nigeria;

2. find out the relationship between knowledge creation exercise and teachers' instructional task performance in secondary schools in Enugu State, Nigeria;

3. ascertain the relationship between pedagogical content knowledge and teachers' professional competences in secondary schools in Enugu State, Nigeria;

4. find out the relationship between pedagogical content knowledge and teachers' instructional task performance in secondary schools in Enugu State, Nigeria;

5. find out the relationship between knowledge management practices and teachers' professional competences in secondary schools in Enugu State, Nigeria; and

6. find out the relationship between knowledge management practices and teachers' instructional task performance in secondary schools in Enugu State, Nigeria.

Research Questions

The following research questions guided this study.

1. What is the relationship between knowledge creation exercises and teachers' professional competences in secondary schools in Enugu State, Nigeria?

2. What is the relationship between knowledge creation exercises and teachers' instructional task performance in secondary schools in Enugu State, Nigeria?

3. What is the relationship between pedagogical content knowledge and teachers' professional competences in secondary schools in Enugu State, Nigeria?

4. What is the relationship between pedagogical content knowledge and teachers' instructional task performance in secondary schools in Enugu State, Nigeria?

5. What is the relationship between knowledge management practices and teachers' professional competences in secondary schools in Enugu State, Nigeria?

6. What is the relationship between knowledge management practices and teachers' instructional task performance in secondary schools in Enugu State, Nigeria?

Hypotheses

The following hypotheses were tested at 0.05 significant level.

1. There is no significant relationship between knowledge creation exercises and teachers' professional competences in secondary schools in Enugu State, Nigeria.

2. There is no significant relationship between knowledge creation exercises and teachers' instructional task performance in secondary schools in Enugu State, Nigeria.

3. There is no significant relationship between pedagogical content knowledge and teachers' professional competences in secondary schools in Enugu State, Nigeria.

4. There is no significant relationship between pedagogical content knowledge and teachers' instructional task performance in secondary schools in Enugu State, Nigeria.

5. There is no significant relationship between knowledge management practices and teachers' professional competences in secondary schools in Enugu State, Nigeria.

6. There is no significant relationship between knowledge management practices and teachers' instructional task performance in secondary schools in Enugu State, Nigeria.

METHODOLOGY

Design of the Study: This study adopted a correlational survey design. Nworgu (2015) posited that, a correlational survey design is a research design that measures the relationship between two or more variables to determine or estimate the extent to which the values for the variables are related.

Population of the Study: The population of this study comprised all the 7,790 principals and teachers in 286 public senior secondary schools in Enugu State, Nigeria.

Sample and Sampling Technique: The sample size for this study was 425 principals and teachers. Multi-stage sampling procedure through cluster, stratified and simple random sampling techniques were used to draw the sample. First, the 286 schools were clustered into 17 Local Government Areas in Enugu State, Nigeria. Thereafter, simple random sampling technique was used to draw one (1) school from each L.G.A making 17 secondary schools in all. Finally, the 17 principals in the 17 secondary schools was purposively drawn while stratified random sampling technique was used to draw 24 teachers from each of the drawn schools making a total of 408 teachers.

Instruments for Data Collection: The instruments used for data collection were Questionnaire titled: Knowledge Management Practices Questionnaire (KMPQ); Teachers' Professional Competences Questionnaire (TPCQ); and Teachers' Instructional Task Performance Questionnaire (TITPQ). The KMPQ was divided into two sections of A and B. Section A elicited demographic information of the respondents such as designation and school. Section B was designed in two clusters with items to measure KMPQ. The TPCQ had items structured based on the variable. The TITPQ had items structured based on the variable. The instruments were structured in line with four point Likert response option of strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1).

Validity of Instrument: The instruments, KMPQ; TPCQ; and TITPQ were validated by three experts in the Faculty of Education, University of Nigeria, Nsukka. Copies of KMPQ; TPCQ; and TITPQ were given to the experts for face validation of what the instrument appeared to measure superficially. After thorough examination and proof-reading, the experts made their comments, observations and corrections. Finally, all their comments, observations and corrections were systematically included in the final draft of the instruments to ensure that the instruments met face validity.

Reliability of the Instrument: The reliability of the instruments was established using internal consistency through Cronbach Alpha method on 20 teachers from secondary schools in Abia State, Nigeria. However, 20 copies of each questionnaire were administered to the respondents once. Thereafter, the internal consistencies of the instruments were determined at 0.91 for KMPQ, 0.89 for TPCQ, and 0.94 for TITPQ.

Method of Data Analysis: In analyzing the data, linear regression was used to answer research questions one to four, while multiple regression analysis was used to answer research questions five and six. Hence, t-test associated with linear regression was used to test hypotheses one to four, while Analysis of Variance (ANOVA) associated with multiple regression was used to test hypotheses five and six at 0.05 significant level.

RESULTS

Research Question One: What is the relationship between knowledge creation exercises and teachers' professional competences in secondary schools in Enugu State, Nigeria?

Table 1: Linear regression analysis on the relationship between knowledge creation exercises and teachers' professional competences

Model	R	R Square	Adjusted R Square (R^2)	Standard Error of the Estimate	Decision
1	0.832[a]	.692	.690	1.75340	Very high relationship

a. **Predictors: (Constant),** knowledge creation exercises

Key (R): Very Low = 0.01-0.20; Low = 0.21-0.40; Moderate = 0.41-0.60; High = 0.61-0.80; Very High = 0.81 and above

Table 1 revealed that the regression coefficient (R) is given as 0.835 while the adjusted regression square R^2 is given as 0.690 respectively. This shows that there is a very high relationship

between knowledge creation exercises and teachers' professional competences in secondary schools in Enugu State, Nigeria. This implied that, knowledge creation improves teachers' professional competences to deliver quality instruction in secondary schools.

Hypothesis One: There is no significant relationship between knowledge creation exercises and teachers' professional competences in secondary schools in Enugu State

Table 2: t-test associated with linear regression on the relationship between knowledge creation exercises and teachers' professional competences

Coefficientsᵃ

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Alpha Level	Decision
		B	Std. Error	Beta				
1	(Constant)	6.122	.627	.832	9.764	.001	0.05	Significant
	knowledge creation exercises	.830	.208		23.499	.000		

a. **Dependent Variable:** Teachers' professional competences

t = t-test

Table 2 revealed that the t-test value associated with linear regression is 23.499. The hypothesis is significant, because the significant value of 0.00 is less than the alpha value of 0.05. Therefore, there is a significant relationship between knowledge creation exercises and teachers' professional competences in secondary schools in Enugu State.

Research Question Two: What is the relationship between knowledge creation exercises and teachers' instructional task performance in secondary schools in Enugu State, Nigeria?

Table 3: Linear regression analysis on the relationship between knowledge creation exercises and teachers' instructional task performance

Model	R	R Square	Adjusted R Square (R^2)	Standard Error of the Estimate	Decision
1	0.891ᵃ	.794	.790	1.60241	Very high relationship

a. **Predictors: (Constant),** knowledge creation exercises

Table 3 revealed that the regression coefficient (R) is given as 0.891 while the adjusted regression square R^2 is given as 0.790 respectively. This shows that there is a very high relationship between knowledge creation exercises and teachers' instructional task performance in secondary schools in Enugu State, Nigeria. This implied that, knowledge creation exercise empowers teachers to perform their instructional tasks as expected in secondary schools.

Hypothesis Two: There is no significant relationship between knowledge creation exercises and teachers' instructional task performance in secondary schools in Enugu State, Nigeria.

Table 4: t-test associated with linear regression on the relationship between knowledge creation exercises and teachers' instructional task performance

Coefficientsᵃ

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Alpha Level	Decision
		B	Std. Error	Beta				
1	(Constant)	11.044	.637	.891	12.395	.000	0.05	Significant
	knowledge creation exercises	.890	.254		48.799	.000		

a. **Dependent Variable:** Teachers' instructional task performance

Table 4 revealed that the t-test value associated with linear regression is 48.499. The hypothesis is significant, because the significant value of 0.00 is less than the alpha value of 0.05. Therefore, there is a significant relationship between knowledge creation exercises and teachers' instructional task performance in secondary schools in Enugu State.

Research Question Three: What is the relationship between pedagogical content knowledge and teachers' professional competences in secondary schools in Enugu State, Nigeria?

Table 5: Linear regression analysis on the relationship between pedagogical content knowledge and teachers' professional competences

Model	R	R Square	Adjusted R Square (R^2)	Standard Error of the Estimate	Decision
1	0.922[a]	.850	.850	3.00289	Very high relationship

a. **Predictors: (Constant),** pedagogical content knowledge

Table 5 revealed that the regression coefficient (R) is given as 0.922 while the adjusted regression square R^2 is given as 0.850 respectively. This shows that there is a very high relationship between pedagogical content knowledge and teachers' professional competences in secondary schools in Enugu State, Nigeria. This implied that, pedagogical content knowledge among teachers' motivate them to engage in professional competency programmes to improve their job performance in secondary schools.

Hypothesis Three: There is no significant relationship between pedagogical content knowledge and teachers' professional competences in secondary schools in Enugu State, Nigeria.

Table 6: t-test associated with linear regression on the relationship between pedagogical content knowledge and teachers' professional competences

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Alpha Level	Decision
		B	Std. Error	Beta				
1	(Constant)	8.764	.737	.922	9.738	.000	0.05	Significant
	pedagogical content knowledge	.920	.163		59.741	.000		

a. **Dependent Variable:** Teachers' professional competences

Table 6 revealed that the t-test value associated with linear regression is 59.741. The hypothesis is significant, because the significant value of 0.00 is less than the alpha value of 0.05. Therefore, there is a significant relationship between pedagogical content knowledge and teachers' professional competences in secondary schools in Enugu State.

Research Question Four: What is the relationship between pedagogical content knowledge and teachers' instructional task performance in secondary schools in Enugu State, Nigeria?

Table 7: Linear regression analysis on the relationship between pedagogical content knowledge and teachers' instructional task performance

Model	R	R Square	Adjusted R Square (R^2)	Standard Error of the Estimate	Decision
1	0.907[a]	.823	.820	2.03472	Very high relationship

    a.   **Predictors: (Constant),** pedagogical content knowledge

Table 7 revealed that the regression coefficient (R) is given as 0.907 while the adjusted regression square R^2 is given as 0.820 respectively. This shows that there is a very high relationship between pedagogical content knowledge and teachers' instructional task performance in secondary schools in Enugu State, Nigeria. This implied that, pedagogical content knowledge among teachers' motivate them to deliver their instructional tasks effectively in secondary schools.

Hypothesis Four: There is no significant relationship between pedagogical content knowledge and teachers' instructional task performance in secondary schools in Enugu State, Nigeria.

Table 8: t-test associated with linear regression on the relationship between pedagogical content knowledge and teachers' instructional task performance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Alpha Level	Decision
		B	Std. Error	Beta				
1	(Constant)	9.033	.716	.907	9.926	.000	0.05	Significant
	pedagogical content knowledge	.910	.194		51.167	.000		

a. **Dependent Variable:** Teachers' instructional task performance

Table 8 revealed that the t-test value associated with linear regression is 51.167. The hypothesis is significant, because the significant value of 0.00 is less than the alpha value of 0.05. Therefore, there is a significant relationship between pedagogical content knowledge and teachers' instructional task performance in secondary schools in Enugu State.

Research Question Five: What is the relationship between knowledge management practices and teachers' professional competences in secondary schools in Enugu State, Nigeria?

Table 9: Linear regression analysis on the relationship between knowledge management practices and teachers' professional competences

Model	R	R Square	Adjusted R Square (R^2)	Standard Error of the Estimate	Decision
1	0.862[a]	.742	.740	1.93472	Very high relationship

    a.   **Predictors: (Constant),** knowledge management practices

Table 9 revealed that the regression coefficient (R) is given as 0.862 while the adjusted regression square R^2 is given as 0.740 respectively. This shows that there is a very high relationship between knowledge management practices and teachers' professional competences in secondary schools in Enugu State, Nigeria. This implied that, knowledge management practices among teachers' improve their professional competences in secondary schools.

Hypothesis Five: There is no significant relationship between knowledge management practices and

teachers' professional competences in secondary schools in Enugu State, Nigeria.

Table 10: ANOVA associated with multiple regression analysis between knowledge management practices and teachers' professional competences in secondary schools

Model		Sum of Squares	df	Mean Square	*F*	Sig.	Alpha level	Decision
1	Regression	11210.58	2	5605.29	347.86	0.00[b]	0.05	Significant
	Residual	5784.81	423	16.11				
	Total	16995.39	425					

Table 10 revealed that the degrees of freedom are 2 and 423 with calculated ANOVA value of 347.86. The hypothesis is significant, because the significant value of 0.00 is less than the alpha value of 0.05. Therefore, there is a significant relationship between knowledge management practices and teachers' professional competences in secondary schools in Enugu State, Nigeria.

Research Question Six: What is the relationship between knowledge management practices and teachers' instructional task performance in secondary schools in Enugu State, Nigeria?

Table 11: Linear regression analysis on the relationship between knowledge management practices and teachers' instructional task performance

Model	R	R Square	Adjusted R Square (R^2)	Standard Error of the Estimate	Decision
1	0.914[a]	.836	.840	2.69743	Very high relationship

a. **Predictors: (Constant),** knowledge management practices

Table 11 revealed that the regression coefficient (R) is given as 0.914 while the adjusted regression square R^2 is given as 0.840 respectively. This shows that there is a very high relationship between knowledge management practices and teachers' instructional task performance in secondary schools in Enugu State, Nigeria. This implied that, knowledge management practices among teachers' enhance their instructional task performance in secondary schools in Enugu State, Nigeria.

Hypothesis Six: There is no significant relationship between knowledge management practices and teachers' instructional task performance in secondary schools in Enugu State, Nigeria.

Table 12: ANOVA associated with multiple regression analysis between knowledge management practices and teachers' instructional task performance in secondary schools

Model		Sum of Squares	df	Mean Square	*F*	Sig.	Alpha value	Decision
1	Regression	20275.58	2	10137.789	1242.9	0.00[b]	0.05	Significant
	Residual	2928.92	423	8.159				
	Total	23204.49	425					

Table 12 revealed that, the degrees of freedom are 2 and 423 with calculated ANOVA value of 1242.59. The hypothesis is significant, because the significant value of 0.00 is less than the alpha value of 0.05. Therefore, there is a significant relationship between knowledge management practices and teachers' instructional task performance in secondary schools in Enugu State, Nigeria.

DISCUSSION

Knowledge creation exercises and teachers' professional competences

The findings revealed that, there is a very high relationship between knowledge creation exercises and teachers' professional competences in secondary schools in Enugu State, Nigeria. This implied that, knowledge creation improves teachers' professional competences to deliver quality instruction in secondary schools. The test of

hypothesis one showed that, there is a significant relationship between knowledge creation exercises and teachers' professional competences in secondary schools in Enugu State. Knowledge creation exercise can be enhanced through proper mentoring of the beginning teachers to encourage them build new knowledge, become innovative in research publications for knowledge growth, build upon successes to avoid the mistakes of others, assist the beginning teachers in proper planning of classroom instruction, and supporting the teachers to contribute maximally to knowledge advancement during classroom instructions. In line with the findings, Igoni and Nwabueze (2021) revealed that by creating knowledge, teachers gain more ideas and develop skills of delivering quality instructions. Creating knowledge is a synergistic process needed by teachers in the school system to deliver instructions qualitatively. When teachers create an idea or a way of doing things with another teacher, then just the act of putting their ideas into words or writing will help them shape and improve that idea for the delivery of quality instructions (Jackson, Chuang, Harden, Jiang, & Joseph, 2016). However, the purpose of education is to create knowledge with others and share experiences for improved productivity.

Knowledge creation exercises and teachers' instructional task performance

The findings equally revealed that, there is a very high relationship between knowledge creation exercises and teachers' instructional task performance in secondary schools in Enugu State, Nigeria. This implied that, knowledge creation exercise empowers teachers to perform their instructional tasks as expected in secondary schools. The test of hypothesis two showed that, there is a significant relationship between knowledge creation exercises and teachers' instructional task performance in secondary schools in Enugu State. Teachers' involvement in knowledge creation promotes their instructional task performance, which include: being active in improvising instructional

materials needed to deliver instructions effectively, using guided experience in transferring knowledge to the learners, ensuring that critical knowledge is passed on to students, promoting excellent ideas for effective instructional delivery, promoting team-building among staff for students' productivity, and evaluating knowledge transferred to the students. In line with the findings, Tschannen-Moran (2011) found that, there is significant link between teacher professional competence in knowledge creation and their instructional task performance for effective instructional delivery in schools. Knowledge creation had been described as the capability to create, recognize, disseminate widely, and transfer knowledge to the students, which help the institution to develop effective knowledge harnessing, reuse, and learning from prior knowledge. Hence, knowledge creation is the fundamental means through which teachers can contribute positively towards the learners' growth, innovation, and ultimately be of competitive advantage within the organization. Knowledge transfer exercise among teachers is all about the practical process of transferring knowledge from a teacher to the learner. Like knowledge management, knowledge transfer seeks to organize, create, capture or distribute knowledge and ensure its availability for future users. It enables teachers to meet complex demands by mobilising psycho-social resources in context, and deploying them in a coherent way. It empowers the teacher to act professionally and appropriately in a situation (Koster & Dengerink, 2018).

Pedagogical content knowledge and teachers' professional competences

The finding also revealed that, there is a very high relationship between pedagogical content knowledge and teachers' professional competences in secondary schools in Enugu State, Nigeria. This implied that, pedagogical content knowledge among teachers' motivate them to engage in professional competency programmes to improve their job performance in secondary schools. The test of hypothesis three showed that, there is a significant

relationship between pedagogical content knowledge and teachers' professional competences in secondary schools in Enugu State. Hence, professionally competent teachers manage the pedagogical content knowledge by upgrading meaningful links between knowledge and skills, finding multiple ways of representing ideas during classroom interactions, creating developmental lessons to support students' academic progress, possessing the skills of using teaching materials in classroom discussion, and acquiring specialized knowledge for creating effective teaching and learning environments. In line with the findings, Rahman (2014) found out that, pedagogical content knowledge equip the teachers with the skills to deliver instructions as expected and handle the students properly for productive output. To improve the pedagogical content knowledge of teachers, there is need for teachers to be involved in training on a regular basis, continuing professional education for skill acquisition, and training the facilitators on the use of various science teaching strategies, as well as using of laboratory science training tool and media design for conducting action research.

Pedagogical content knowledge and teachers' instructional task performance

The finding went further to reveal that, there is a very high relationship between pedagogical content knowledge and teachers' instructional task performance in secondary schools in Enugu State, Nigeria. This implied that, pedagogical content knowledge among teachers' motivate them to deliver their instructional tasks effectively in secondary schools. The test of hypothesis four showed that, there is a significant relationship between pedagogical content knowledge and teachers' instructional task performance in secondary schools in Enugu State. Management of pedagogical content knowledge improves teachers' instructional task performance by upgrading teacher's knowledge to adopt a critical approach in maintaining effective instructions, having understanding of subject-specific knowledge to teach the students, exhibiting critical

understanding of technology concepts for students' upbringing, and maintaining a domain-specific knowledge for effective instructional delivery. In line with the findings, Oke (2021) agreed that, teachers' pedagogical content knowledge needed for effective instructional delivery in secondary schools include: understanding of subject-specific and programme-specific knowledge to be taught, creation of meaningful links between knowledge and skills, exhibiting a critical understanding of the knowledge to be taught among staff for effective instructional task performance, building the knowledge of curriculum design, building the knowledge of solving students' learning difficulties, and interpretations/transformation of knowledge of subject matter to facilitate student learning outcomes.

Knowledge management practices and teachers' professional competences

The findings equally revealed that, there is a very high relationship between knowledge management practices and teachers' professional competences in secondary schools in Enugu State, Nigeria. This implied that, knowledge management practices among teachers' improve their professional competences in secondary schools. The test of hypothesis five showed that, there is a significant relationship between knowledge management practices and teachers' professional competences in secondary schools in Enugu State, Nigeria. When teachers manage knowledge appropriately, their professional competences are energized. However, professionally competent teachers are equipped with the right skills to transfer knowledge to students, assist the beginning teachers in proper planning of classroom instruction, acquire series of ideas to promote learning during classroom instruction, promote innovative ideas of handling students in classroom interactions, equip them with the knowledge of operating technological resources during teaching, and share concrete knowledge to students using available teaching aids in classroom activities. Professionally competent teachers through knowledge management acquire the skills of writing

lesson notes, encouraging the students to improve their skills through knowledge transfer, and help in reducing errors while teaching the students. Knowledge management practices help the teachers to be versatile in using practical applications to support the theoretical assumptions during teaching, and support the teachers to contribute maximally to knowledge advancement during classroom instructions.

In line with the findings, Newman and Conrad (2019) expressed that, knowledge management comprised of activities associated with the entry of new knowledge into the system, which includes knowledge development, discovery and capture. Knowledge management is concerned with the exploitation and development of the knowledge assets of an institution with a view to achieve the aim and objectives of such an institution. Knowledge management can be acknowledged as the systematic medium of distributing, building and effectively using existing and new skills for the production of graduates that would participate in nation building (Madumere-Obike & Nwabueze, 2012). Knowledge management is therefore, geared towards the accomplishment of institutional goals and objectives, which builds up the learner with the skills of solving problems within his vicinity.

Knowledge management practices and teachers' instructional task performance

The findings finally revealed that, there is a very high relationship between knowledge management practices and teachers' instructional task performance in secondary schools in Enugu State, Nigeria. This implied that, knowledge management practices among teachers' enhance their instructional task performance in secondary schools in Enugu State, Nigeria. The test of hypothesis six showed that, there is a significant relationship between knowledge management practices and teachers' instructional task performance in secondary schools in Enugu State, Nigeria. Knowledge management practices assist the teachers in performing their instructional tasks as expected.

Knowledge management practices help the teachers to: manage academic time appropriately for instructional effectiveness, use proper communication network in delivering instructions, allow students to express their opinions during classroom instruction, become aware of all information that may be of official interest to students, promote interactions during classroom instructions, encourage teachers to be functional in preparing their lessons for knowledge building, make teaching more clearer, and command respect for improved task performance.

In line with the findings, Madumere-Obike, Ukala and Nwabueze (2016) explained that knowledge management is the explicit and systematic management of vital knowledge and its associated processes of creating, gathering, organizing, diffusion, use and exploitation within the education system. Knowledge management (KM) involves activities such as acquisition, creation, packaging or application of knowledge for institutional progress and productivity. Secondary educational institutions have the potential to learn and integrate new knowledge into specific practices that will improve teachers' instructional effectiveness for academic progress. Knowledge management increases the development of creativity and innovativeness of teachers in delivering instructions effectively for positive learning outcome and increased competitive advantages. Knowledge management is a relevant activity for education industry to create, share and disseminate appropriate information to the students for capacity building (Edikpa, Nwabueze & Iremeka, 2018). Hence, proper knowledge management in educational institutions enhances effective instructional performance among teachers through creative ideas and innovative skills.

CONCLUSION

Based on the findings, the researchers concluded that teachers manage knowledge through active involvement in professional competency programmes to improve their instructional tasks performance. However, professionally competent

teachers build positive relationships with students, praise students for their accomplishments, establish clear expectations among students, learn to give out rewards for good behaviour, and encourage initiatives among students. Competent teachers monitor students on academic progress on daily basis, deliver course contents to students with appropriate skills, exhibit profound understanding of their respective subject matters, planning instructions carefully, and make effective use of teachers' guide in teaching.

Recommendations

Based on the findings, the following recommendations were made.

1. Principals should allow the teachers to be actively involved in professional competency programmes to enable them be creative in transferring knowledge to the learners.

2. Teachers should regularly be involved in research to create new knowledge needed to perform quality instructional task in secondary schools for improved productivity.

3. Teachers should possess the pedagogical content knowledge needed to improve their professional competences in secondary schools.

4. Teachers should possess the skills of writing lesson notes, encouraging the students to improve their skills through knowledge transfer, and help in reducing errors while teaching the students through knowledge management and professional competences.

5. Through knowledge management practices, teachers should be versatile in using practical applications to support the theoretical assumptions during teaching, and contribute maximally to knowledge advancement during classroom instructions.

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