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TEACHERS' ESSENTIAL SKILLS AND CONTENT KNOWLEDGE AS PREDICTORS OF STUDENTS' ACADEMIC ACHIEVEMENT IN ENGLISH LANGUAGE

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ABSTRACT

Teachers' essential skills and content knowledge are two key aspects of research in teaching that have link with students' academic achievement. The study aimed to examine the intricate relations and contributing effect of teachers' essential skills and their content knowledge on students' academic achievement in English Language. The study adapted a predictive correlational research design. The sample size was made up of 780 secondary school students in Anambra State. The standard multiple regression was used to analyze the collected data. The t-test for r, F-test and test of significance for β, were used to test hypotheses at .05 level of significance. Our findings showed that perceived teachers' essential skills and content knowledge jointly predicted students' academic achievement in English language. Teachers' content knowledge does not uniquely predict students' academic achievement, while technological skill has the strongest predictive strength in predicting students' academic achievement in English language. Based on the contributions of perceived teachers' essential skills and level of content knowledge in predicting students' academic achievement, it was recommended that teacher education which involved developing essential skills and content knowledge of the teachers should be strengthened through in-service training to enhance not only the teachers' professional competence, but also their instructional quality which will in turn impact positively on students' academic success.

Keywords: Teachers' Essential Skills, Content Knowledge and Academic Achievement.

Introduction

Integrating modern teaching methods can aid students in expanding their level of comprehension in the process of learning. According to Zubeidah (2018), better and higher quality education prepares students with higher-order thinking. It permits students to create a skill to develop beliefs and ideas and gives them a problem-solving approach in the process of learning. It has been noticed that during recent times, teachers are using different strategies and practices along with activities in the classroom, encouraging students to become independent learners, and given them autonomy in using various materials to support their learning (Mirza & Jabeen, 2024). According to Susanti (2024), teachers should develop learning activities for students to challenge them to analyze, evaluate, and create solutions to problems. This is done using probing questions as part of essential teaching skills to encourage discussions and reasoning in the classroom to enable them independently formulate opinions and defend their ideas in the learning contexts.

In the 21st-century teacher education, essential skills appear to be a rare and scarce commodity even among professionally trained teachers and this is referred to as teachers' technical skills (Yusuf & Amali, 2013). According to the researchers, the definition is narrow and simple in the sense that it failed to capture the need for teachers to have good understanding of the subject they teach, of how to monitor students' progress and how to help students who are falling behind (that is students with poor and fluctuating academic performance). This is because in the 21st-century, teaching has gone beyond the art and science of conserving and transmitting knowledge, concept, and skills to succeeding generations, to influence observable and measurable students' outcomes. New teaching pedagogies learning skills, and assessment methods have emerged to adapt to these changes (Barber *et al*, 2013). These challenges represent challenges that may burden teachers in the secondary school education who have to keep pace with the innovative paradigms of secondary education and new approaches to teaching and learning. This includes being aware of who the students are, what they need to learn, how to teach them, as well as the skills that they, as instructors need to master to effectively execute their roles (Palloff & Pratt, 2013). For teachers to be able to cope with these challenges, there is a dire need to examine the essential skills of successful teachers in line with the observable behaviors that describe their level of mastering the instructional materials (i.e., content knowledge) which could in turn influence students' academic achievement. For example, Mamman and Saba (2022), posit that a skill is an ability to act with determined results with good performance often within a given timeframe, energy, or both. It generally requires certain environmental stimuli and situations to assess the level of proficiency demonstrated and used. According to these scholars, teachers require a broad range of skills to make a significant contribution to student

learning environment. These essential skills according to (Abdous, 2011; Bailie, 2011; Craddock & Gunzelman, 2013; Munoz Carril *et al*, 2013), are pedagogical skills, content skills, design skills, technological skills, management and institutional skills, and social and communication skills.

Understanding pedagogical skills makes it one of the effective teaching skills and teachers should comprehend the fundamentals of classroom teaching and learning (Kunter *et al*, 2013). Teachers must demonstrate this understanding through applying a large number of principles and strategies. These principles and strategies include; learning theories, such as learning styles, the adult learning theory, the learner-centered approach, and collaborative learning (Abdous, 2011). Others include designing and implementing appropriate instructional strategies, as well as classroom assessment and student's engagement techniques; organizing and facilitating students' participation and providing guidance (Bailie, 2011). Craddock and Gunzelman, (2013) opined that support as needed; using criterion-based assessment to evaluate individual and group performance; motivating students and showing enthusiasm and interest are attributes that describe teacher's pedagogical skills in the teaching profession. However, Munoz Carril *et al*, (2013) indicated that encouraging knowledge construction based upon learners' prior knowledge and life experience; fostering learners' self-assessment and reflection; and promoting group interaction, collaboration and teamwork are robust indicators that facilitate pedagogical skills in the teaching process. Pedagogical skills are essential skills that define teacher's competencies to effectively determine what, where, when, how, and the method that will best be adapted to enhance proactive teaching that will be result-oriented to the students.

On the aspect of content skill, it generally refers to the facts, concepts, theories, and skills such as reading, writing, or researching that, students also learn in school. Teachers should be able to do the following to demonstrate their content skills: expressing and mastering extensive knowledge of the content; stating learning goals and objectives that coincide with learners' levels and characteristics, drafting and developing learning (Abdous, 2011). It also involves assessment activities that align with learning goals and objectives; developing a course outline that include all course components and elements (Bailie, 2011). According to Craddock and Gunzelman, (2013) content skills involve designing a teaching proposal oat at the general level and identify each of its phases or elements. Contents skill also involves developing and selecting appropriate and varied learning resources that accommodate different learning styles and preferences; linking the subject and content with scientific, social, culture, and resources, and additional content and resources that will be needed (Munoz Carril *et al*, 2013).

Looking at design skill, Abdous (2011) posits that instructional design is the creation of learning experiences and applications of knowledge and skills. This requires having a design and production

team, which consists of an instructional designer, instructional technologist, graphic and media designers and librarians. Indeed, professional teachers must be able to do the following: understanding and applying instructional design principles, models, and theories; organizing and presenting the learning materials in different formats; cooperating with the production team to design learning activities (Newby, Engleson & Plander, 2024). The scholars also noted that selecting appropriate tools and techniques to present these activities; and using students' previous feedback to develop and design new courses and assess the course design quality by using quality assurance tools and instruments, define the nature of design skills of the teacher.

Understanding technological skill implies that 21st-century teaching and learning relies heavily on technology. Technological skills are the abilities and knowledge needed to perform specific task both by students and instructors in the learning environment. They are practical ideas that relate to the use of different types of mechanical, electronic, information, technology, communication devices, or other related rules in a connected environment (Mamman & Saba, 2020). Technological skill has to do with abilities, experiences, and technical know-how to be able to operate many devices, perform and navigate through many information technology platforms in an online learning environment (Abdous, 2011).In their contribution, Alman and Tomer, (2012) believe that teachers have to possess adequate technological literacy skills to be able to do the following: accessing various technological resources and tools, such as email, internet browsers, text and video chat applications, and productivity represent the level of technological skill that enable teachers to perform optimally in their profession. In another contribution, using software and applications; understanding the learning and teaching capabilities and limitations of these tools; being aware of the technical potential of, and procedures used to create e-content such as e-books and instructional videos; and being alert to the latest update and renovations of educational technology and software represent the strength base of teachers' technology skills in their profession (Munoz Carril *et al*, 2013).

On the aspect of management and institutional skill, it shows that as classroom management is an important area of face-to-face education, managing courses and learning is essential in the learning process. An awareness of institutional policies and norms is also an important aspect of being a successful teacher. According to Bailie (2011), skills and task related to these two aspects include the following: being able to clarify the roles and expectations of the instructor and the learner, managing the course time and applying time-saving techniques, describe teachers' management skills in their profession.

Of note, Craddock and Gutzelman (2013), indicated that demonstrating leadership, mentoring, and coaching skills, as well as knowledge of administrative qualities and procedures; tracking course and students' progress regularly;

establishing and declaring roles and regulations for participation, submission of assignments, timelines, sending and seeking feedback describe the competence of the teachers in their profession. In supporting these observations, Munoz Carril *et al*, 2013), assert that developing communication protocols; conducting research on classroom teaching, interpreting and integrating research findings and results; understanding and demonstrating a commitment to institutional policies; maintaining contact and networking with online teaching and administrative teams and complying with legal, ethical, and copyright issues and standards are evidence of good management skills among the teachers.

Finally, social and communication skill indicates that active communication and social presence are vital to engaging students to learn. According to Abdous, (2011). using different communication tools (e.g., email, video, chat, text massages etc.) will make teachers to efficiently communicate and promote interactivity among the learners. Some activities to achieve this include the following: facilitating and maintaining interactive discussion and information exchange; using sufficient and commonly understandable language; respecting and considering cultural differences; clearly requesting information and asking questions; clarifying the purpose and meaning of messages and feedback (Fuller & Yu, 2014). Others are using different communication methods to ensure accessibility among the instructor and learners, and the learners with their peers; maintaining a worm, friendly, and inviting collegial atmosphere, creating and developing respectful relationships and a sense of community among the learners, showing sensitivity and empathy when communicating in online; resolving conflicts and suggestions and clarifying doubts and suspicions (Carril *et al*, 2013). All these skills are essential in determining teachers' level of mastering the content of the instructions that will impact on the students' learning outcomes. On this premises, the present study hypothesized that the teachers' essential skills could have a positive link with their content knowledge mastery to predict students' academic outcomes.

Drawing on this assertion, teachers content knowledge is conceptualized as a deep understanding of the content to be taught (Kraus *et al*, 2008). For example, studies using proximal approaches to measure teacher content knowledge have produced more consistent results, showing that teachers content knowledge is associated with higher quality instruction, which in turn has a positive effect on student learning (e.g., Hill *et al*, 2007). This shows that a profound differentiated knowledge base on student characteristics, the teaching matter, and or possible instructional interactions enables expert teachers to perceive and interpret teaching situations more adequately, resulting in the enactment of better instructional strategies.

In an attempt to trace the evolution of teachers' content knowledge, Shuiman (1986) as was cited in Kunter *et al* (2013), refers to it as the amount and organization of knowledge per se in the mind of the teacher.

This indicates that to think properly about content knowledge by the teacher requires going beyond knowledge of the facts or concepts of a domain. It requires understanding the structures of the subject matter in the manner defined by the expert teacher. Meaning that teachers must not only be capable of defining for students the acceptable truths in a domain. They must also be able to explain why a particular proposition is deemed warranted, why it is worth knowing, and how it relates to other propositions, both within the discipline and without, both in theory and in practice. However, since teachers' content knowledge reflects deep understanding of instructional content to be taught in the classroom, it requires going beyond the concept of a specific subject domain, it also describes a teachers' understanding of the structure of his/her subject domain.

Interestingly, the teacher needs not only understand that something is so, he/she must understand why it is so, which implies that teachers' content knowledge should represent a deep understanding of the material to be mastered by the students. Based on these observations, the researchers hypothesized that the level of teachers' content knowledge that surfaces as teachers' instructional behavior in the teaching and learning process could have proximal relationship with their essential skills, which could jointly predict students' academic achievement.

In this present study, researchers assumed that teachers' essential skills and their level of content knowledge could be examined independently, so as to understand how successful teachers' instructional behavior will profit the academic outcomes of the students when taken into cognizance. Therefore, the present study investigated whether differences and criticalities in teachers' essential skills and their content knowledge could be explored by using the students' academic outcomes. This because teachers' essential skills and content knowledge are teachers' personal characteristics that describe their level of professional competency that could influence students' academic outcomes.

Thus, students' academic achievement is hypothesized to be affected by their experiences in the classroom, which was shaped by teachers' instructional behaviors which essential skills and contentment knowledge are representing. Testing this hypothesis will help the present study to respond to the crucial question on whether teachers could create challenging and adaptive learning situations and effectively guide their students through the activating learning process. In an attempt to prove teachers' professional competence using students' academic achievement, Klusman (2008) described a professionally successful teacher by using their instructional behaviors. Sequel to this, Emmer and Stough (2011) outlined four qualities of a successful teachers that describe their professional competence. First, teachers succeed in establishing a well-structured environment characterized by low disturbance levels and efficient use of time (classroom management). Second, teachers foster cognitive activation, enabling students to develop new insights and

understandings. Third, successful teachers proceed at an appropriate pace that neither overtaxes nor underestimate students. Forth, successful teachers are able to create a supportive social environment (e.g., show patience with students' mistakes, take time to talk about interpersonal problems, and behave fairly in critical situations) in which the students receive personal guidance and feel personality valued. These four aspects of instructional quality in teacher education are subsumed essential skills of a professional teacher which may influence their level of content knowledge in any subject domain to be determine students' academic achievement. In this study, researchers presumed that teachers' essential skills and their content knowledge should be independently and collectively examined to ascertain how each could uniquely and jointly have profited students' academic outcome irrespective of subject specific.

Academic achievement is a critical measure of success in education, yet many secondary school students in Anambra State, Nigeria continue to face challenges in attaining their full potential, specifically in English language. Many of the students, despite having high hopes and expectations of achieving optimal performance, unfortunately fail to meet their desired academic outcome, thus, portraying that there are gaps between their aspirations and their actual outcomes. While research suggests a link between teachers' essential skills, level of content knowledge, and academic achievement, the nature of effects and extent of this relationship remain unclear, particularly across divers student's population and educational environment in Anambra State. Some students show little or no interest in the academic work, while other students appear to put more effort in their studies. Others have high aspirations to excel and despite these ambitions; it is unfortunate that students often fall short of their desired outcomes. This indicates that many factors might have been responsible for these abysmal performance among which the perception students' have for teachers' essential skills and their level of content knowledge as they represent teachers' instructional behavior in the teaching and learning could impact positively or negatively on students' academic achievement in English language.

For example, Yusuf and Amali (2013) revealed a positive correlation between teachers' pedagogical skills and students' performance in Social Studies. There is no correlation between teachers' use of instructional materials/ content skill and students' performance in Social Studies. In their findings, pedagogical skills are highly needed for the online teaching. However, Mamman and Saba (2022) recorded that interaction, management, technology, content, organization/ instructional design, and pedagogical skills are highly needed for successful online teaching in the post-covid-19-era. In their study, interaction skill was ranked first together with management skill for successful online teaching. This means that for to be a successful teacher in any subject specific, these essential skills must be acquired. The study of Hiruru (2005), reported that five of these skills, (interaction,

management, organization/instructional design, technology, and content skill) were ranked 1-5 as the essential skills for successful online teaching. Sequel to the present study, Lee and Tsai (2011) posit that content knowledge is very significant in teaching in online environment. This implies that in the teaching profession, teachers' mastery in the content specific is important as well as their ability to organize and present instructional material to the students.

The researchers have noticed that paucity of research has explored how teachers' essential skills and their level of content knowledge specifically impact students' academic achievement in English language. This gap in knowledge raises critical questions as to "what is the nature of relationship among teachers' essential skills, level of content knowledge and students' academic achievement, and how does changes or variations from teachers' essential skills and their level of content knowledge affect students' academic achievement in English language? Responding to these problems is crucial to understanding the perception students have, the interpretations they have given, and the meaning they have ascribed to their teachers' instructional behaviors being observed in the classroom teaching and learning, which in turn affected the willingness to engage constructively and socially in the learning context. Against this backdrop, the researchers investigated teachers' essential skills, and content knowledge as predictors of students' academic achievement in English language at the secondary school level.

Research Questions

1. To what extent are the assumptions of multiple regression equation for predicting students' academic achievement scores in English language using teachers' essential skills, and their content knowledge scores met?
2. What is the nature of the regression equation for predicting students' academic achievement scores in English language sing teachers' essential skills and their content knowledge scores?
3. What are the unique contributions of perceived teachers' essential skills, and level of content knowledge scores?
4. Which of the independent variables such as; teachers' essential skills and their content knowledge best predicted students' academic achievement in English language?

Hypotheses

1. The regression equation does not significantly predict students' academic achievement in English language scores using teachers' essential skills and their content knowledge scores.
2. The unique contributions of teachers' essential skills and their content knowledge scores is not significant.
3. Teachers' essential skills and their content knowledge scores does not significantly predict students'

academic achievement scores in English language.

Research Method

The researchers adopted a multiple regression predictive research design and used questionnaires to collect data for the study. The population of the study consisted of 21204 being the total number of students in senior Anambra State. A sample size of 780 students was selected for the study. Multi-stage sampling procedure was used to select the respondents. In stage one, three education zones were selected from the six education zones in the state by simple random sampling. Then in stage two, from each sampled education zone, one local government area (L.G.A) was selected through simple random sampling given a total of three (3) L.G.As. In stage three, from each sampled L.G.A, 10 schools were randomly selected giving a total of 30 schools. Then, from each of the schools, 26 SSII students were selected for the study using a table of simple random sampling. This gave a total number of 780 students used in the study.

The study adapted two standardized research questionnaires for data collection. One of the questionnaires is a structured questionnaire tagged Perceived Teachers' Essential Skills Questionnaire (PTESQ) that was developed by the researchers through the adaption from the Skills and Task for Online Teaching Questionnaire (STOTQ, Mamman & Saba, 2022) and was used to examine the perception students have for the teachers' essential skills. The level of teachers' content knowledge was also examined with Questionnaire on Teachers' Characteristics (OTC, Yusuf & Amali, 2014). The items were placed on a scale of six-point rating scale of Very Untrue (VU) = 1, Mostly Untrue (MU) = 2, Somewhat Untrue (SU) = 3, Somewhat True (ST) = 4, Mostly True (MT) = 5, and Very True (VT) = 6. The students' achievement scores were obtained from the schools before the start of the administration of the other two questionnaires. The achievement scores used in the study were the results of the state wide SS1 promotion examination in English language.

The questionnaires were dully validated by the three experts from the Faculty of Education, Nnamdi Azikiwe University Awka. Cronbach's alpha reliability method was used to determine the internal consistency of the items in the research questions which yielded an index of 0.76 for pedagogical skills, 0.71 for design skills, 0.81 for content skills, 0.72 for management and institutional skills, 0.64 for technological skills, 0.82 for social and commutation skills and 0.69 for content knowledge respectively. The data were analyzed using standard multiple regression analyses. The t-test for r, F-test and test of significance for β, were used to test hypotheses at .05 level of significance.

Results

The data were first screened for missing values, and 83 respondents had missing representing 10.64%. Hence likewise deletion approach was adopted. After deleting the 64 respondents, the sample size

was reduced to 697. Thereafter, analysis of the study was carried out using standard multiple regression analysis with SPSS 26.

Research question 1: To what extent are the assumptions of the regression equation for predicting students' academic achievement scores in English language using teachers' essential skills and their content knowledge scores met?

Table 1: Correlation and descriptive statistics of independent and dependent variables in the regression model for this study (N = 697).

Variables	PS	CSDSTS	MS	SCS	CK	Ach	X	SD	VAR	SK	KU	TF	VIF		
PS	1									18.6	3.54	12.58	-.337	-.452	.369
2.710															
CS	.401**	1								18.3	3.48	12.14	-.211	-.514	.379
2.638															
DS	.327**	.326**	1				18.2	3.44	11.87	-.247	-.584	.831	1.284		
	.000	.000													
TS	.779**	.350**	.329**	118.5	3.61	13.07	-.381	-.624	.378	2.881					
	.000	.000	.000												
MS	.351**	.770**	.272**	.315**	1				18.4	3.44	11.88	-.281	-.571	.414	
2.478															
	.000	.000	.000	,000											
SCS	.047	.021	.027	.041	.010	1			18.8	3.94	15.57	-.218	-.151	.997	
1.003															
	.214	.588	.471	.279	.784										
CK	.287**	.100**	.033	.312**	.098**	.032	1		19.3	2.99	8.97	-.417	-.074	.890	
1.123															
	.000	.008	.381	.000	.010	.392									
ACH	-.001	.016	.045	.056	.055	-.166**	-.0181		23.7	3.41	11.66	-.421	-.308		
.985	.671	.239	.139	.148	.000	.644									

Std. Residual Min = -2.992, Std. residual Max = 3.429, Durbin Waston statistics = .849. PS = Pedagogical Skill, CS = Content Skill, DS = Designing Skill, TS = Technological Skills, MS = Managerial Skill, SCS = Social and Communication Skill, CK = Content Knowledge, Ach = Achievement.

Fig 1 the normal P.P plot of standardized residuals data points of academic achievement.

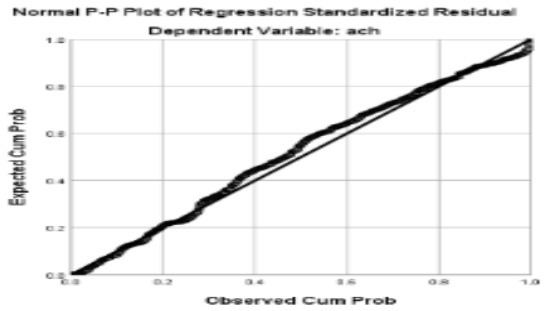


Fig 2 the normal distribution curve of standardized residuals data points of academic achievement.

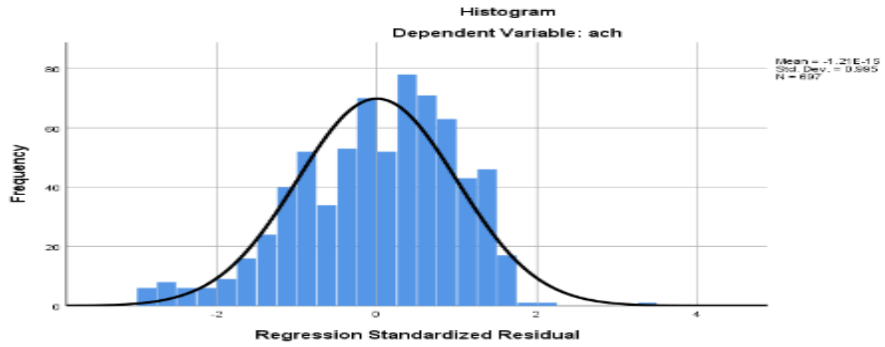
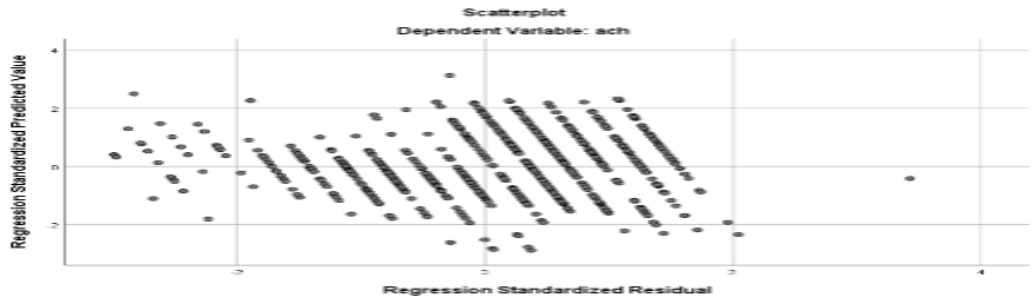


Fig 3 the scatter plot of standardized residuals data points of academic achievement.



To answer research question 1, seven assumptions of multiple linear regression were tested in this study. First, the assumptions of normality of the data were tested using Skewness and Kurtosis. The assumptions were made since none of the Skewness and Kurtosis values of each of the variables do not exceed + 3 and – 3 as recommended. Second, the assumptions of absence of multivariate outliers were checked using standardized residual statistics and Cook's distance statistics (1977). Result of standardized residual values indicated that the (Std, Residual Min = -2.992, Std, Residual Max = 3.429). It lies between -3 to 3 as recommended by (Tabachnick and Fidell, 2018). While the result of the Cook's distance shows a maximum value of .055 which is less than 1 as recommended by (Cook, 1977). Hence, the assumptions of absence of multivariate outliers were not violated. Third, the assumptions of absence of multicollinearity among the predicting variables were checked using Variance Inflated Factor (VIF), and Tolerance Factor (TF). The Tolerance Factors and Variance Inflated Factors (Pedagogical Skill, TF = .369, VIF =

2.710; Content Skill, TF = .379, VIF = 2.638; Designing Skill, TF = .831, VIF = 1.204; Technological Skill, TF = .376, VIF = 2.661; Managerial Skill, TF = .404, VIF = 2.478; Social and Communication Skill, TF = .997, VIF = 1.003; Content Knowledge, = TF = .890, VIF = 1.123; of the independent variables show that the values were less than 10 for Variance Inflated Factor and greater than .20 for Tolerance Factor respectively as recommended by (Schumaker, 2015). Hence, this assumption of absence of multicollinearity was made. Forth, the assumption of independent of error was tested using Durbin Waston statistics. The result shown a Durbin Waston statistic of .849 which is less than 3 but greater than 0 as recommended by (Denis, 2020). Hence, the assumption of independent of error was not violated. Fifth, the assumptions of normality of error distribution were tested using normal P.P plot of standardized residual. Figure 1shows that the normal P.P plot of standardized residual data points were normally distributed. Histogram of the standardized residual in figure 2 also testified to that. Sixth, the assumption of homogeneity of variance and linearity was tested using scatter plot of standardized predicted values. The result in figure 3 shows that the data met the assumption of homogeneity of variance and linearity as the predicted values were distributed above zero in both dimensions and do not show any pattern. Seventh, the assumptions of non-zero variance were tested using variance statistics and the data also met the assumptions of non-zero variances (Pedagogical Skill, Variance = 12.58; Content Skill, Variance = 12.14; Designing Skill, Variance = 11.87; Technological skill, Variance = 13.07; Managerial Skill, Variance = 11.88Social and Communication Skill, Variance = 15.57; Content Knowledge, Variance = 8.97; Academic achievement, Variance = 11.66) as there is no zero variance for the variables in the study as shown in the table 1.

Research Question 2: What is the nature of the regression equation for predicting students' achievement scores in English language using teachers' essential skills and their content knowledge scores?

Table 2: Regression coefficient for teachers' essential skills and their content knowledge scores (N = 697).

Model	Unstandardized βeta	Std. Error	Standardized βeta
Constant	25.455	1.285	
Pedagogical skill	-.110	.059	-.114
Content skill	-.067.059	-.069	
Designing skill	.036.041	.037	
Technological skill	.134 .057	.142	
Managerial skill	.097.058	.098	
Social and communication skill	-.144 .032	-.166	

Content knowledge	-.032	.045	-.028

Using the information in table 2, the nature of the regression equation for predicting students' academic achievement scores in English language using perceived teachers' essential skills and level of content knowledge scores follows:

Y = b0 + b1x1 + b2 x 2 + b3 x3 + b4 x 4 + b5 x 5 + b6 x 6 + b7 x7
Y = 25.455 +-.110 x 1 + -.067 x 2 + .036 x 3 + .134 x 4 + .097 x 5 + -.144 x 6 + -.031 x 7
Ach = 25.455 + -0.11 + - 0.134 + 0.108 + 0.536 + 0.485 + - 0.864 + - 0.217
Achievement = 25.455 – 0.11PS – 0.134CS + 0.108DS + 0.536TS + 0.485MS – 0.864SCS – 0.217CK

PS = Pedagogical Skill, CS = Content Skill, DS = Designing Skill, TS = Technological Skill, MS = Managerial Skill, SCS = Social and Communication Skill, CK = Content Knowledge.

The equation shows that for every unit decrease in pedagogical skill, achievement decreased by -0.11. For every unit decrease in content skill, achievement decreased by – 0.134. For every unit increase in designing skill, achievement increased by 0.108. For every unit increase in technological skill, achievement increased by 0.53. For every unit increase in managerial skill, achievement increased by 0.485. For every unit decrease in social and communication skill, achievement decreased by – 0.864. For every unit decrease in content knowledge, achievement decreased by - 0.826. The implication of these findings is that teachers' essential skills and content knowledge have positively and negatively influenced the students' desire to engage in the learning of English language depending on the individual's nature of perception towards these pedagogical skills.

Research Question 3: What are the unique contributions of teachers' essential skills and their content knowledge scores to predict students' academic achievement scores in English language?

Table 3: Regression model summary of teachers' essential skills and their content knowledge scores to predict students' academic achievement scores in English language (N = 697).

Model	R	R-Square	Adjusted R-Square	Std. Error of the Estimate
	.205[a]	.042	.032	8.35998

To answer this research, question the adjusted multiple regression R square was used. The result of study shows that using teachers' essential skills and their content knowledge scores yielded an adjusted R squared of .042. This implies that predictors accounted for about 4.2% of the variance scores in mathematics academic achievement.

Research Question 4: Which of the independent variables such as; teachers' essential skill and content knowledge best predicted students' academic achievement scores in English language?

Table 4: Regression coefficient for students' academic achievement scores in English language using teachers' essential skills and their content knowledge scores (N = 697).

Model	Unstandardized βeta	Std. Error	Standardized βeta
Constant	25.455	1.285	
Pedagogical skill	-.110	.059	-.114
Content skill	-.067	.059	-.069
Designing skill	.036	.041	.037
Technological skill	.134	.057	.142
Managerial skill	.097	.058	.098
Social and communication skill	-.144	.032	-.166
Content knowledge	-.032	.045	-.028

Table 4: Regression coefficient for students' academic achievement scores in English language using teachers' essential skills and their content knowledge scores. To answer this research question 4, the standardized regression coefficient (β) in table 4 was used for comparison. The regression coefficients presented in table 4 shows unstandardized (β) and standardized regression coefficient (β) pedagogical skill scores are -.110 and -.114. For content skill scores are -.067 and -.069. For designing skills cores are .036 and .037. For technological skill scores are .134 and .142. For managerial skill scores are .097 and .098. For social and communication scores are - .144 and -.166. For content knowledge scores are -.032 and -.028. Using the standardized (β) for comparison, technological skill mostly predicted students' academic achievement in English language as shown by the β of .142. Managerial skill is the second most predicted students' academic achievement in English language as shown by the β of .098. Designing skill is the third most predicted students' academic achievement in English language as shown by the β of .037. Social and communication skill is the fourth most predicted students' academic achievement in English language as shown by theβ of -.166. Pedagogical skill is the fifth most predicted students' academic achievement in English language as shown by the β of -.114. Content skill is the sixth most predicted students' academic achievement in English language as shown by the β of -.069. Content knowledge is the seventh most predicted students' academic achievement in English language as shown by the β of -.028respectively.

Hypothesis 1: The regression model does not significantly predict academic achievement scores in English language.

Table 5: F- test for regression model of teachers' essential skills and their content knowledge scores on students' academic achievement scores in English language (N = 697).

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	341.357	7	48.765	4.289	.000[b]
Residual	7778.453	689	11.289		
Total	8119.811	696			

The analysis of variance in the table shows that the regression equation was significant (7, 689) = 4.289, $p < .05$. This implies that at least one of the independent variables significantly predicted the academic achievement scores in English language.

Hypothesis 2: The unique contributions of teachers' essential skills and their content knowledge scores to predict students' academic achievement scores in English language is not statistically significant

Table 6. t-test of adjusted R square of the regression model for this study.

Model	R	R- Square	Adjusted R- Square	Std. Error Estimate	t – cal for adj. R^2	DF	t- crt.	Remark
	.205[a]	.042	.032	3.35998	5.6413	695	1.960	S

To test hypothesis 2, t-test for adjusted R square was conducted. Results of the study shown in table 6 indicates that t-critical for adjusted R square is 1.960, while that of the t-calculated is 5.6413. Since the t-calculated for adjusted R square 5.6413 is greater than t-critical 1.960, the null hypothesis which states that the unique contributions of teachers' essential skills and their content knowledge scores to predict students' academic achievement scores in English language is not statistically significant is rejected and the alternative hypothesis is accepted. In other words, the unique contributions of teachers' essential skills and content knowledge scores to predict students' academic achievement scores in English language is statistically significant. The implication of this findings is that the perceptions students have toward the teachers' utilization of essential skills and content knowledge in the instructional delivery contributed significantly to their English language proficiency. Effect sizes were also evaluated using adjusted R^2 comparing it with Cohen's *d* statistics guideline, where $d < 0.20$ indicates a minimal effects size, $0.20 < d < 0.50$ indicates a small effect size, $0.50 < d < 0.80$ indicates a moderate effect size and $d > 0.80$ indicates a large effect size. The value of

adjusted R square .032 indicates a small effect size.

Hypothesis 3: Teachers' essential skills and their content knowledge scores to predict students' academic achievement scores in English language does not statistically significant.

Table 7: t-test of regression coefficient of students' academic achievement scores in English language, teachers' essential skills and their content knowledge scores.

Model	Unstandardized βeta	Std. Error	Standardized βeta	T	P-value	Remark
Constant	25.455	1.285		19.607	.000	S
Pedagogical skill	-.110	.059	-.114	- 1.859	.063	NS
Content skill	-.067	.059	-.069	- 1.132	.258	NS
Designing skill	.036	.041	.037	.394	.372	NS
Technological skill	.134	.057	.142	2.329	.020	S
Managerial skill	.097	.058	.098	1.662	.097	NS
Social and communication skill	-.144	.032	-.166	- 4.455	.000	S
Content knowledge	-.031	.045	-.028	-.696	.487	NS

Table 7 shows that technological skill and social and communication skill scores significantly predicted academic achievement scores in English language since their p-values are smaller than .05. While content skill, pedagogical skill, designing skill, managerial skill, and content knowledge scores does not significantly predict academic achievement scores in English language since their p-values are greater than .05. This shows that students are more adaptive in using technological skill and social and communication skill than content skill, pedagogical skill, designing skill, managerial skill, and content knowledge in the teaching and learning process.

Discussion of Findings

The findings from the result revealed that the seven assumptions tested in table 1 indicated that the components of teachers' essential skills (pedagogical, content, designing, technological, managerial and social and communication skills) and content knowledge are potentially fit to examine their collective impact on students' zest to engage meaningfully in the learning context for optimal academic achievement. Meeting the assumptions of the regression model implies that the data are suitable and amenable to the analysis.

The findings from the nature of regression equation revealed that, designing skill, technological skill, and managerial skill have positive contributions to the predicting model while pedagogical skill, content skill, social and communication skill, and content knowledge have negative contribution to the predicting model. This implies that both perceived teachers' essential skills and content knowledge had a significant impact in determining students'

academic achievement in English language as positive and negative influences were observed from the endogenous variables. These findings supported the study of Yusuf and Amali (2013) which revealed a positive correlation between teachers' pedagogical skills and students' performance in Social Studies. There is no correlation between teachers' use of instructional materials/ content skill and students' performance in Social Studies. In their findings, pedagogical skills are highly needed for the online teaching. This supported the study of Hill *et al* (2007) which posit that using proximal approaches to measure teacher content knowledge have produced more consistent results, showing that teachers content knowledge is associated with higher quality instruction, which in turn has a positive effect on student learning.

From the findings, multiple regression R square stands to prove a dynamic relationship among the components of perceived teachers' essential skills and their level of content knowledge as they jointly predicted students' academic achievement scores in English language. The small percentage (4.2%) of these variables in predicting academic achievement scores in English language indicated that the constructs are salient predictors of students' intentions to adapt with teachers' instructional behaviors as facilitating conditions to achieve optimally in the learning situation.

Findings indicated that the endogenous variables have critical roles to play in shaping and determining students' academic achievement. For example, when teachers' designing skill, technological skill, and managerial skill are positively low in contributing to students' academic achievement, students' willingness to adapt to these instructional behaviors will also be positively low. Also, when teachers' pedagogical skill, content skill, social and communication skill, and content knowledge are negatively low in contributing to students' academic achievement, students' desire to adapt to their instructional behavior will be negatively low. These observable instructional behaviors will in turn affect students' chances of achieving optimally. These supported the study of Mamman and Saba (2022) which recorded that interaction, management, technology, content, organization/ instructional design, and pedagogical skills are highly needed for successful online teaching in the post-covid-19-era. In their study, interaction skill was ranked first together with management skill for successful online teaching.

Finding revealed that the analysis of variance for regression equation was significant using the components of teachers' essential skills and their content knowledge in determining students' academic achievement scores in English languages. This indicates that the variables had critically represented and described that level of professional competence of the teachers in the teaching and learning process which the students have observed interpreted and ascribed meaning to it as it was revealed in the study.

Finding revealed that the unique contributions of the components of perceived teachers' essential skills and their

level of content knowledge scores to students' academic achievement scores in English language is statistically significant. Using effect sizes to evaluate its adjusted R^2tocompare it with Cohen's *d* statistics guideline, the value of R adjusted square .032 indicated a small effect. This showed that from the instructional behavior of the teachers in the classroom teaching, the level of professional competencies exhibited by which proves their expertise in in conveying instruction to the students is not robustly facilitating students' learning enthusiasm specifically in English language domain.

Conclusion

From the findings in the study, it was concluded that the due to the intricate interplay of perceived teachers' essential skills and level of content knowledge, the independent variables statistically and significantly predicted students' academic achievement scores in English language. This shows that the endogenous variables are the key components in the teaching profession that affect students' academic progress in different subject specific. With this opinion, the researchers affirmed the quality of learning opportunity created by the teachers affects students' learning and motivation to engage in learning. That is teachers' mastery of the subject matter (content knowledge) and essential skills had shown that affect teachers' instructional practices as well as students in the domain of English language.

Reccomendations

Based on the findings, the following recommendations were made:

1. As a result of the contributions of teachers' essential skills and their content knowledge in predicting students' academic achievement, it was recommended that teacher education which involved developing essential skills and content knowledge of the teachers should be strengthened through in-service training to enhance not only the teachers' professional competence, but also to enhance mastery towards their instructional material which will in turn impact positively on students' academic achievement.
2. Despite the encouraging findings in the present study by using multiple regression approach, it was recommended that future study on this variabless should examine the ineractive effect of these variables on one another. This should be done with path analysis approach to explore the direct and indirect effects of the endogenous variables on the ectogenous variable which the present study was unable to investigate.

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