



INSTRUCTIONAL PLANNING AS A MEDIATOR OF TEACHER EFFECTIVENESS AND STUDENTS' LEARNING OPTIMIZATION: A CORRELATIONAL STUDY AT PRIMARY AND SECONDARY SCHOOLS IN NIGERIA

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ABSTRACT

The United Nations' global call for inclusive and equitable quality education has prompted many developing countries, including Nigeria, to focus on improving the quality of education. This has led to growing recognition of the pivotal role teachers' quality plays in ensuring high-quality teaching and instruction in the classroom. Therefore, this study examined the determinants of teachers' effectiveness and their effects on students' learning optimization in Lagos State, Nigeria. A descriptive survey research design was used for the study. Simple random sampling was used to select 480 respondents. Data were collected using a questionnaire titled: Teachers' Effectiveness and Students Learning Optimization (TESLO). Descriptive statistics, T-test, Analysis of Variance (ANOVA), and Pearson Moment Correlation were used to analyse the data collected. Instructional planning/delivery was found to be the foremost factor that determines teachers' effectiveness. There was a significant difference in the effect of different determinants of teachers' effectiveness on students' learning optimization (ANOVA at $P < 0.05$). Correlation between teachers' age and teaching effectiveness was determined using Pearson Moment Correlation; the result showed that age has a positive correlation with teachers' effectiveness (at $r = 0.00$). Students' learning optimization can be enhanced through instructional planning and teachers' professional development. Instructional planning should be prioritized in the teacher professional development programme. Teachers should individualize instruction and modify their curriculum, teaching methods, and resources according to students' needs and questions to create a more effective learning environment for their students.

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1. INTRODUCTION

Education is an important cornerstone of societal development, driving economic growth, social mobility and civic engagement. It is a fundamental pillar for societal development, influencing economic growth, social mobility and civic engagement. It enhances individual capabilities; it boosts productivity and fosters innovation leading to advancement correlating positively with economic growth stages (Pal, 2023). Education can promote equitable opportunities for all as it has substantial economic potential, necessitating investment in modern knowledge and skills to stimulate growth (Tatarinova 2024).

Despite the significant investments in education, students' performance in examinations remain inconsistent, prompting a need to explore factors that bridge teacher capabilities and students' achievement. In the context of education in Nigeria, the quality of education in Lagos State has been a topic of discussion in recent years, with concerns about the effectiveness of teachers and the impact on students' learning outcomes. The United Nations has also called for inclusive and equitable quality education as summarized in Sustainable Development Goal 4 (UN DESA, 2018). However, achieving quality education depends largely on the school system and the quality of its teachers. As a result, there is growing recognition of the crucial role that teachers' personal qualities play in ensuring high-quality teaching and instruction in the classroom.

The potential that an effective teacher has can significantly upgrade the performance of the students. Teachers are expected to be skilful in instructional planning. Well planned instruction guides the content, teaching methods, delivery, duration, evaluation, resources and location of the lesson (Iqbal et al., 2021). Instructional planning involves systematic design of lessons, adaptive use of both digital resources and material resources and alignment of the curricula with the goals and learning objectives are fundamental to achieving success in teaching and learning. Instructional planning begins with setting specific learning objectives that guides teacher lesson development (Udin et al., 2024). It involves selection of right pedagogical strategies that will take care of the diverse needs of students in the class. This ensures inclusivity and engagement as advocated for in the Sustainable Development Goal 4 of quality and inclusive education (Carranza et al., 2024). It ensures proper incorporation of both digital and material resources which can enhance effective learning experiences and personalized education (Carranza et al., 2024). Moreover, it allows for aligning curricula with stipulated educational goals. This makes teaching and learning relevant and effective thereby foster a coherent learning environment (Udin et al., 2024).

Teachers' qualities and effective use of teaching techniques can have a profound effect on student learning optimization (Cesar et al., 2021). Teachers are more effective than others in promoting desirable educational outcomes. However, certain factors have been identified to determine how effective a teacher is in the classroom. Such factors include teachers' pedagogical knowledge, personal traits, evaluation strategies and teaching strategies. For example, differentiated instruction which is an outcome of a continuous decision-making process involves the identification of academic diversity to enhance effective teaching and learning in the classroom (Adewale, 2024). Instruction is adjusted to increase the clarity of concepts and learning access for all learners while ensuring rigour and relevance for all students in the classroom (Bondie et al., 2019). Formative Assessment which refers to continuous assessment of learning as teaching and learning is in progress and providing feedback and support throughout the learning process (Veugen et al., 2021). It is expected also that teachers possess good attributes such as skilful communication, patience, active listening, and creativity. These are essential qualities that allow teachers to connect with their students and convey information in a way that is engaging and easy to understand. Practical wisdom and emotional intelligence are additional traits that enable one to make sound decisions and build strong relationships with students (Nwani, 2021).

When teachers combine some of these qualities and use them effectively in class, it will be easy for students to integrate new knowledge with prior knowledge, and enable them to organize knowledge components thus promoting retrieval. An effective teacher is compassionate and empathetic, creating a secure and dependable structure for learning, teaching students active listening, embedding strategic instruction and building collaborative relationships. Despite several efforts by the government to improve education in Nigeria, Lagos State still grapples with issues such as low students' achievement in Senior Secondary Schools Examinations conducted by West African Examination Council and National Examination Council. In addition, the problem of inadequate teacher training, poor instructional delivery by the teachers and inability of most teachers to integrate technology effectively into their teaching. These issues might have stemmed from lack of understanding about the factors that influence teacher effectiveness in Lagos State.

The importance of teacher effectiveness in improving student learning outcomes is gaining recognition among scholars, however, there is a lack of empirical research on the specific factors that determine teacher effectiveness and student learning optimisation in Lagos State, Nigeria. Existing studies like Graham (2020) and Bardach, et al., (2022) have focused on teachers' year of experience, psychological characteristics such as teacher qualifications and experience and direct links between teacher effectiveness and students' success but have neglect mediation mechanisms and have not adequately explored the specific instructional practices and school contextual factors that influence teacher effectiveness in the context of Lagos state.

In Nigeria, where more than half of the population is under 24 years old, the demand for quality education is urgent especially in Lagos State. Lagos State is one of the most populated states in Nigeria. It is the nation's economic hub with a diverse population of over 20 million people (Olajide & Lawanson, 2022). The state is faced with many societal challenges due to its urbanisation and rapid population growth (Auwalu & Bello, 2023). With her

increasing population growth, the education sector is grappling with challenges such as overcrowded classrooms, resource disparities and poor teacher training programme (Ogunrinbokun, et al., 2023). Teacher effectiveness which entails content knowledge, classroom management and pedagogical skills is a critical determinant of student success. Majority of teachers in Nigeria lack foundational training increasing disparities in urban and peri-urban schools (Adewoyin et al., 2024). Moreover, while there is professional development programme within the state, the impact is uneven leaving gaps among the teachers in instructional strategies tailored towards local challenges.

Therefore, this study aims to address this knowledge gap by examining the determinants of teacher effectiveness and their impact on student learning optimisation in Lagos State Nigeria. Specifically, the study identifies factors that determine teachers' effectiveness. It examines the effects of different determinants of teachers' effectiveness on students learning optimization. It also determines the effect on gender and age on teaching effectiveness.

2. METHOD

Research Design

For this study a descriptive research design was used to identify factors that determines teachers' effectiveness and their impacts on students' learning optimisation. Descriptive research design enables the description of the characteristics of the teachers who formed the population of this study. It enhances the provision of accurate snapshot of variables at a specific point in time. It enabled the researcher to document prevalence factors that determined teachers' effectiveness in Lagos State. The design is not experimental, it is quantitatively focused. It enables cross sectional study using surveys questions to collect data from the respondents. The design is suitable for this study because it enables the researcher to documents the current state of instructional planning, teacher effectiveness and students' success. It helps to identify actionable patterns without requiring experimental manipulation. It provides a foundation for evidence-based policy and future causal studies. Moreover, by focusing on what exists rather than why it exists, the study delivers immediate value to stakeholders while paving the way for deeper exploration of teacher's effectiveness in mediating educational outcomes.

Study Area

The study was conducted in Lagos State. Lagos State is in the southwestern part of Nigeria and is the most populous state in the country. It covers an area of approximately 3,577 square kilometres and has an estimated population of over 20 million people out of which about 1.5 million children are enrolled in both primary and secondary schools. Lagos State is divided into six education districts (Figure 1). The education districts in Lagos State are responsible for the supervision and management of primary and secondary schools in their respective areas. These districts are:

1. Lagos Island Education District
2. Lagos Mainland Education District
3. Ikeja Education District
4. Mushin Education District
5. Ikorodu Education District
6. Epe Education District

Each education district is responsible for ensuring that schools within their jurisdiction comply with government policies and regulations and provide quality education to students. They also provide support and guidance to teachers and school administrators and facilitate teacher training and professional development programs.

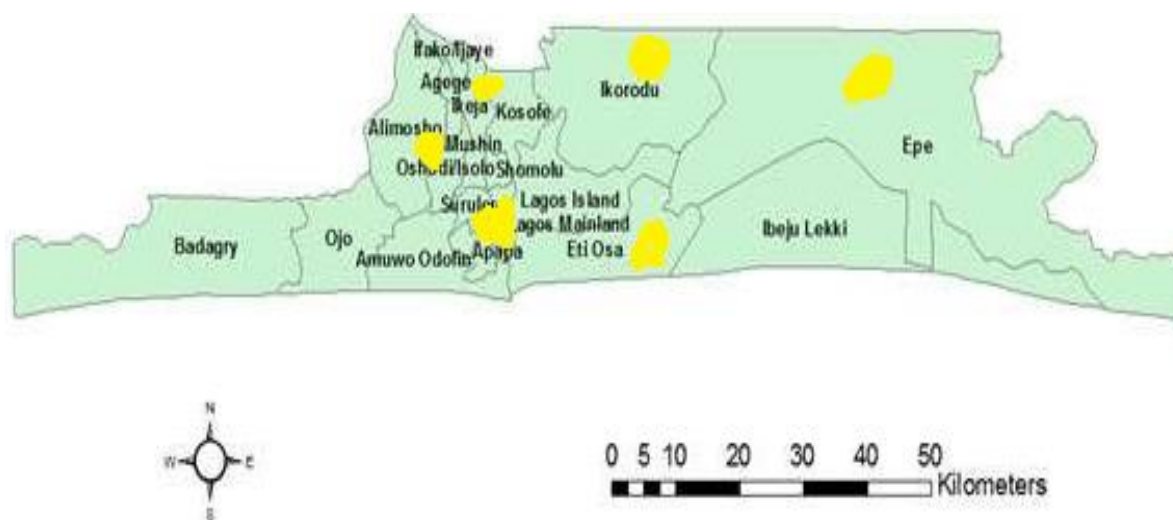


Figure 1 – Map showing Lagos State (Source: Google Maps)

Research Participants

The study focused on teachers in both public and private schools in the 6 Education Districts of Lagos State. This study employed a simple random sampling method to select teachers for the study across the 6 education districts of Lagos State. 16 schools were randomly selected from each education district. From each school, 5 teachers, comprising males and females, were randomly selected, making a total of 480 teachers.

Regarding gender, 48% of the respondents were male, while 52% of the respondents were female. Both genders were represented in the study. About half of the respondents were between the ages of 30-39 years, while 33% of the respondents were between the ages of 40-49 years. This shows that most of the respondents were in their active years. In terms of the employment status, close to 70% of the respondents were full-time staff, while about 60% of the respondents were working in private schools, and 40% were staff of the public school. Related to the education level, 58% of the respondents were teachers in High School, while 42% of the respondents were teachers in pre-school and Elementary. Further, 90% of the respondents had more than 5 years of teaching experience, while 10% had less than 5 years of teaching experience, and teachers from all six Education Districts of Lagos State were represented in the study.

Young male and female teachers who were in their active years were teachers in Lagos State schools. A larger percentage of these young and vibrant teachers are full-time staff members in private schools. This might be because teachers' daily work has become more complex and demanding in addressing an increasing number of students coming from different backgrounds. The expanding knowledge, increased job demands social responsibilities for teachers have edged out aged people from the teaching profession. This result is consistent with the findings of Yuce et al., (2013).

Research Instruments

The instrument used in data collection was a questionnaire titled Teachers' Effectiveness and Students Learning Optimization (TESLO) questionnaire. The instrument was Likert-type. It was divided into 3 sub-sections. Section A contained questions on demographic characteristics of the respondents, Section B contained questions on identification of factors that determine teacher effectiveness, while Section C asked questions on the effects of different determinants of teachers' effectiveness on students' learning optimization. The instruments designed for this study were assessed for face, content, and construct validity. The reliability and internal consistency of the subscales were determined using Cronbach's alpha coefficient test.

Data Collection and Analysis

Data were collected through a questionnaire. The instruments were distributed to the respondents, and they were collected after completion of each section of the questionnaire. The questionnaire items were measured on a five-point Likert scale of Very High, High, Moderately High, Low, and Very Low. The scoring was from 4 to 1 points for positive items, while the reverse of 1 to 4 points for negative items.

Table 1 – Likert-type scales and interpretations

Rating	Teachers' Effectiveness and Students Learning Optimisation
4	Strongly agree
3	Agree
2	Sometimes Occurs
1	Rarely Occurs

Quantitative data were analyzed using the descriptive statistical tools such as frequencies, percentages and means. Statistical analysis of data was carried out using Microsoft Office Excel 2022 and the SPSS 22.0 statistical package programme. One Sample T-test was computed to determine the effect of gender on teachers' effectiveness. Pearson Moment Correlation was computed to determine if Age influences teachers' teaching effectiveness. Analysis of variance was computed to determine whether statistically significant differences existed among effects of different determinants of teachers' effectiveness on students' learning optimisation. Duncan's test was then used as the appropriate post hoc multiple comparison to find where significant differences existed among the mean of different determinants of teachers' effectiveness.

3. RESULTS AND DISCUSSION

Factors that Determine Teacher Effectiveness

Examining factors that determine teachers' effectiveness in the classroom, the respondents were asked to identify and rate these factors. Respondents identified 10 factors in a school system that determine teachers' effectiveness. The identified factors include students' scores in exams and tests, instructional planning and delivery, classroom management and self-control, effective use of formative assessment, teacher's knowledge, skills, participation in professional development, teachers' knowledge of learners and their characteristics, teachers' traits (care, integrity, compassion, love and honesty), The use of differentiated instruction in the classroom, classroom climate and environment and level of and application of practical wisdom in class (see Table 2).

Table 2 – Factors that determine teachers' effectiveness.

S/N	Which of the following do you think can be used to measure teachers' effectiveness in a school system?	Freq	%
1	Instructional planning and delivery	422	88.0
2	Classroom management and self-control	412	86.0
3	Teacher's knowledge, skills, participation in professional development,	390	81.3
4	Teachers' knowledge of learners and their characteristics	362	75.0
5	Teachers' personal traits (care, integrity, compassion, love and honesty)	349	73.0
6	Level of and application of practical wisdom in class	340	70.8
7	The use of differentiated instruction in the classroom	320	67.0
8	The effective use of formative assessment	310	64.6
9	Students' scores in exams and test	301	63.0

Instructional planning/delivery was rated number one by 88% of the respondents followed by classroom management and self-control which was rated number 2 by 86% of the respondents. 81.3% of the respondents rated teacher's knowledge, skills, and participation in professional development high while students' scores in exams and classroom climate and environment were rated low by the respondents. The ratings in decreasing order of importance are given as follows instructional planning and delivery, classroom management and self-control, teacher's knowledge, skills, participation in professional development, teachers' knowledge of learners and their characteristics, teachers' personal traits (care, integrity, compassion, love and honesty), level of and application of practical wisdom in class, use of differentiated instruction in the classroom, the effective use of formative assessment, students' scores in exams and test.

Effects of Different Determinants of Teachers' Effectiveness on Students' Learning Optimization.

Instructional Planning and Student Learning Optimization

Table 3 shows teachers' perceived effects of instructional planning on students learning optimisation.

Table 3 – Instructional Planning and students learning optimization

S/N	Items	Strongly Agree		Agree		Disagree		Strongly Disagree	
		Freq	%	Freq	%	Freq	%	Freq	%
1	Deliberate planning of lesson activities can facilitate student learning within the classroom	370	77	90	19	20	4	0	0
2	Planned lessons lead to an effective process of teaching and learning, preventing the waste of time and resources	362	75	118	25	0	0	0	0
3	Planning instruction makes teachers more systematic and goal-oriented	349	73	121	25	10	2	0	0
4	Planning lessons enables teachers to function more effectively in the classroom by giving a detailed outline that they adhere to during each class	331	69	139	29	10	2	0	0
5	A planned lesson is a powerful method for making lesson concepts clearer to students	351	73	119	25	10	2	0	0
6	Developing effective classroom instruction is essential for improving learning outcomes among students.	311	65	149	31	20	4	0	0
7	Planning helps teachers organize their teaching process and avoid dead ends, giving them more confidence	331	69	139	29	100	21	0	0

The majority (96) of the respondents believed that deliberate planning of lesson activities can facilitate student learning within the classroom. Also, all the respondents believed that planned lessons lead to an effective process of teaching and learning, preventing the waste of time and resources. They further expressed that planning instruction makes teachers to be more systematic and goal-oriented. Almost all the respondents (98%) equally believed that planning lessons enables teachers to function more effectively in the classroom and it was seen as a powerful method for making lesson concepts clearer to students. Moreover, 98% of the respondents also held the view that developing effective classroom instruction is essential for improving learning outcomes among students and it helps teachers to organize their teaching process and avoid dead ends.

Teachers Professional Knowledge and Students Learning Optimisation

Table 4 exhibits teachers perceived professional knowledge and learning optimization.

Table 4 – Teachers Professional Knowledge and Students' Learning Optimisation

S/N	Items	Strongly Agree		Agree		Disagree		Strongly Disagree	
		Freq	%	Freq	%	Freq	%	Freq	%
1	The more pedagogical-psychological knowledge a teacher has the better and more effective the teacher will be in managing students under him and equally promoting learning among the students	351	73	119	25	10	2	0	0
2	Teachers are responsible for the performance of students in external examinations like SSCE	121	25	299	63	50	10	10	2
3	An effective teacher will produce excellent results in examination	261	54	179	38	40	8	0	0
4	Teachers' competency does not necessarily improve students' achievement	80	17	140	29	210	44	50	10
5	Competent teachers can provide high-quality instruction to their students	250	52	200	42	30	6	0	0
6	Teachers' emotional intelligence does not affect students' achievement as teachers' intelligence	30	6	150	31	240	50	60	13

Based on the survey results, 98 % of the respondents agreed that the more pedagogical-psychological knowledge a teacher has the better and more effective the teacher will be in managing students under him and equally promoting learning among the students. The majority of the respondents did not agree with the statement that teachers are solely responsible for students' poor performance in external examinations such as the Senior Secondary Certificate Examination (SSCE). In fact, more than half of the respondents expressed disagreement or strong disagreement with this statement. However, 92 % of the respondents agreed that the idea that effective teachers are instrumental in producing excellent results in examinations. Furthermore, more than half of the respondents emphasized the importance of teachers' competency in enhancing students' academic achievement. Similarly, a substantial majority of the respondents affirmed that competent teachers are capable of providing high quality instruction to students. It should be noted that 63% of the respondents agreed that teachers' emotional intelligence has a more profound impact on students' achievement than their level of intelligence.

Teachers Positive Traits and Student Learning Optimisation

From Table 5, the result shows that most of the respondents believed that effective teachers exhibit practical wisdom in making ethically complex decisions, regulating their care for the students making day-to-day decisions in their classrooms, and having a teaching style that is effective and engaging. Moreover, it enables teachers to have an engaging classroom presence that makes learning fun and exciting.

Table 5 – Teachers Positive Traits

S/N	Items	Strongly Agree		Agree		Disagree		Strongly Disagree	
		Freq	%	Freq	%	Freq	%	Freq	%
1	It's important to possess a variety of positive personal traits to be effective	310	65	150	31	10	2	0	0
2	Skilful communication, active listening and creativity are essential qualities that allow teachers to connect with their students and convey information in a way that is engaging and easy to understand.	359	75	121	25	0		0	0
3	Effective teachers listen carefully to their students and work collaboratively with them.	358	75	112	23	10	2	0	0
4	Care and empathy of a teacher can help them to understand and relate with students on a deeper level	320	67	150	31	10	2	0	0

5	Teachers' empathy and patience make it easier for students to learn and grow.	312	65	155	32	5	1	0	0
6	Practical wisdom and emotional intelligence are additional traits that enable you to make sound decisions and build strong relationships with your students.	310	65	140	29	10	2	20	4
7	Effective teachers exhibit practical wisdom in making ethically complex decisions, regulating their care for the students, and making day-to-day decisions in their classrooms	271	56	159	33	40	8	0	0
8	Teachers with practical wisdom have a teaching style that is effective and engaging	301	63	159	33	20	4	0	0
9	Collaboration and adaptability are critical, as they allow teachers to work effectively with other teachers, administrators and parents while maintaining an open and flexible approach to teaching	320	67	160	33	0	0	0	0
10	Practical wisdom enables teachers to have an engaging classroom presence that makes learning fun and exciting.	311	65	159	33	0	0	0	0

The majority (81%) of the respondents in the survey agreed that it is important to possess variety of positive personal traits to be effective (see Table 5). All the teachers in the survey believed that skillful communication, active listening, and creativity are essential qualities that allow teachers to connect with their students and convey information in a way that is engaging and easy to understand. Most of the respondents believed that the care and empathy of a teacher can help students to understand and relate with students on a deeper level and it makes it easier for students to learn and grow. 94 % of the respondents also believed that practical wisdom and emotional intelligence are essential and additional traits that enable teachers to make sound decisions and build strong relationships with students.

Differentiated Instruction and Student Learning

The results in Table 6 show that most of the respondents in the survey believed that differentiated instruction promotes student achievement, motivates students to learn and enhances autonomy in schools.

Table 6 – Differentiated Instruction and Student Learning

S/N	Items	Strongly Agree		Agree		Disagree		Strongly Disagree	
		Freq	%	Freq	%	Freq	%	Freq	%
1	Differentiated instruction promotes student achievement and motivation to learn	210	44	230	48	31	6	9	2
2	Differentiated instruction enhances autonomy in schools	179	36	201	42	60	13	40	8
3	Differentiated instruction can foster sensitivity towards individual student needs	270	56	201	42	9	2	0	0
4	Differentiated instruction can create a more engaging learning environment,	281	58	149	31	40	8	10	2
5	differentiation of instruction leads to more effective teaching, accommodating students' unique learning styles and resulting in higher achievement and teacher satisfaction.	209	44	221	46	28	9	02	01
6	Identifying academic diversity enhances effective teaching and learning in the classroom	245	51	215	45	10	2	0	0

The majority also believed that differentiated instruction could foster sensitivity towards individual student needs, create a more engaging learning environment, lead to more effective teaching and accommodate students' unique learning styles resulting in higher achievement and teacher satisfaction. Furthermore, 96 % of the respondents also believed that identifying academic differentiated instruction enhances effective teaching and learning in the classroom.

The Effects of Gender on Teachers' Effectiveness

Examining the effect of gender on teachers' effectiveness, the mean score of female teachers was slightly higher than that of male teachers. The mean value for males was 2.7, which is not statistically significant at $P < 0.05$. The standard deviation of 0.5 for both groups suggests that the scores are relatively dispersed around their respective means. Both male and female teachers are effective in their teaching; however, their level of effectiveness is not as high as expected.

Examining the correlation between teachers' age and teaching effectiveness using Pearson's Moment Correlation. It was found that teachers' age has a positive relationship with teachers' effectiveness. However, the correlation was a weak positive linear correlation at $r = 0.000$ (see Table 7). The null hypothesis, which stated that there is no significant difference in the impact of teaching approaches on students' learning optimization, was rejected. This implies that there is a significant difference in the impact of teaching approaches on students' learning optimization.

Table 7 – Pearson Moment Correlation on Teachers' Age and Teaching Effectiveness

		Level of effectiveness	Age
Level of effectiveness	Pearson Correlation	1	-.192**
	Sig. (2-tailed)		.000
	N	480	480
Age	Pearson Correlation	-.192**	1
	Sig. (2-tailed)	.000	
	N	480	480

** . Correlation is significant at the 0.01 level (2-tailed).

Table 8 – ANOVA Analysis for Effects of Different Determinants of Teachers' Effectiveness on Students Learning Optimisation.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	68.902	3	22.967	134.633	.000
Within Groups	325.489	1908	.171		
Total	394.392	1911			

Table 9 – Duncan Post HOC Test on Effects of Different Determinants of Teachers' Effectiveness on Students Learning Optimisation.

Teaching Method	N	Subset for alpha = 0.05		
		1	2	3
Instructional planning	480	1.31		
Differentiated instruction	480		1.54	
Teachers' Pedagogical knowledge	472		1.59	
Formative Assessment	480			1.84
Sig.		1.000	.060	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 477.975.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

The effects of different determinants of teachers' effectiveness that can be used to measure teachers' effectiveness on students' learning optimization were analysed using One-way Analysis of Variance. The result shows that there is a significant difference in the effect of different determinants of teachers' effectiveness on students' learning optimization where $p = 0.000$ (see Table 8). The null hypothesis was therefore rejected. Duncan Post Hoc test further revealed that instructional planning has the highest impact on students' learning optimization (see Table 9).

Factors that determine teacher effectiveness in the classroom

Factors that can be used to measure the effectiveness of teachers in the classroom were identified in the study. They include Instructional planning and delivery, classroom management and self-control, and teacher's knowledge, skills, and participation in professional development are strong indicators of teachers' effectiveness (see Fig. 2). Using one indicator like classroom observation will not give a comprehensive way in which teachers contribute to students' success. This result agrees with the finding of Little (2009). It is interesting to note that students' scores in exams and classroom climate and environment were rated lower by the respondents. This result suggests that instructional planning and delivery, classroom management and self-control should be emphasised more while assessing teachers' effectiveness in the classrooms.

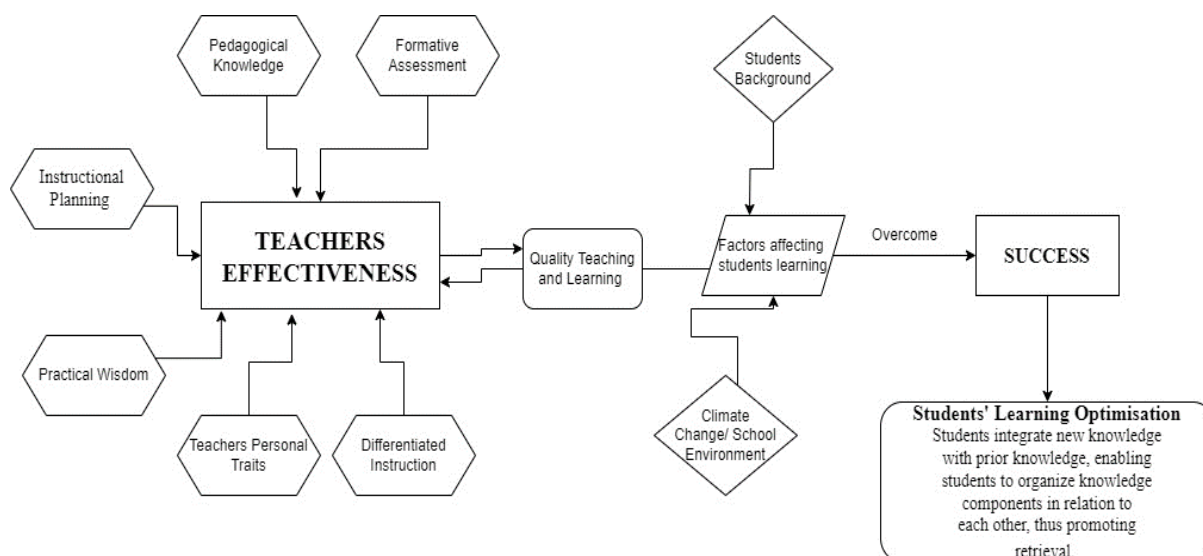


Fig. 2 – Determinants of Teachers' Effectiveness and Students' Learning Optimisation Framework

Source: author 2023

The level of instructional planning and delivery was a major factor that shows how effective a teacher is. This observation is consistent with the findings of Nilsen and Gustafsson (2016). Classroom management and self-control, teacher's knowledge, skills, and participation in professional development are also important factors that indicate teachers' effectiveness. Other factors that can be used to determine the level of teachers' effectiveness include the teacher's knowledge of learners and their characteristics, personal traits like care, integrity, compassion, love, and honesty, level, and application of practical wisdom in the classroom, use of differentiated instruction, effective use of formative assessment, students' scores in exams and tests. However, students' scores in exams are not the main factor that determines the level of effectiveness of a teacher. Teachers with higher self-efficacy may deliver higher instructional quality in classes, however, this may not reflect in student achievement levels. It is important to note that the performance of students in tests and examinations is subject to various factors including home background, social economic status and school environment. This result is consistent with the findings of Schult et al. (2022) and the findings of Toropova et al. (2019).

Effects of Different Determinants of Teachers' Effectiveness on Students' Learning Optimization.

Pedagogical-psychological knowledge is important for effective teaching and managing students. An effective teacher can produce excellent results in exams and teacher competency is important for improving student achievement. Effective teachers can provide high-quality instruction to students. It was observed that a teacher's emotional intelligence can have a greater impact on student achievement than their level of intelligence. Overall, these results suggest that professional pedagogical knowledge is important in creating a conducive learning environment for their students and improving the effectiveness of their teaching. It was positively related to the quality of instruction. This observation supports the findings of Voss and Kunter (2013).

Teachers recognized the importance of possessing a variety of positive personal traits to be effective. Specifically, from this study it was found that skillful communication, active listening, and creativity are essential qualities that allow teachers to connect with their students and convey information in an engaging and easy-to-understand way. Care and empathy were also seen as important qualities that help students understand and relate to their teachers on a deeper level, making it easier for them to learn and grow. Additionally, practical wisdom and emotional intelligence were seen as essential traits that enable teachers to make sound decisions and build strong relationships with their students. Effective teachers were also believed to exhibit practical wisdom in making ethically complex decisions, regulating their care for students, and making day-to-day decisions in their classrooms. Ultimately, these traits enable teachers to have an engaging classroom presence that makes learning fun and exciting. This observation is consistent with the findings of Nwani (2021) and Lukman et al., (2021).

Differentiated instruction promotes student achievement, motivates students to learn and enhances autonomy in schools. Differentiated instruction can make students to progress in their learning based on their pace and

receive personalized workout plans based on their learning needs, which may include opportunities for review, practice, and re-practice, as well as extensions or explorations of interests. Differentiated instruction could foster sensitivity towards individual student needs, create a more engaging learning environment, lead to more effective teaching, and accommodate students' unique learning styles resulting in higher achievement and teacher satisfaction. This observation is consistent with the findings of Alsalmi et al., (2021), Kado et al., (2021). and Sapan and Mede (2022).

Most teachers believe that formative assessment is a valuable tool for assessing students' learning progress, identifying areas that require further attention, and determining what needs to be reinforced. Additionally, formative assessment is a means to measure the depth of students' understanding and create a comfortable and safe learning environment. Although opinions vary, most teachers acknowledge the importance of formative assessment in enhancing student learning outcomes and teacher effectiveness. This study has demonstrated that formative assessment has a positive impact on the academic achievement of students. It encourages feed-forward and feedback, which focuses on a student's current performance. It promotes autonomy, which helps students reflect on what they have learned and make progress in their studies. On the part of the teachers, formative assessment provides teachers with valuable information about students' learning progress. These observations are consistent with the findings of Cizek et al. (2019); Tan and Chen et al., (2022) and Moyo et al. (2022).

The study found a significant difference in the effect of different determinants of teachers' effectiveness on students' learning optimization. Instructional planning had the highest impact. This highlights the importance of prioritizing instructional planning in teacher professional development programme. The teacher as the instructional planner must organize and prepare clear and measurable instructional objectives, select appropriate teaching methodology and instructional materials, possess effective classroom management, positive traits, good communication skills, plan evaluation strategy and be filled with and select the right practical wisdom as the situation may demand. This result is supported by the findings of Karngebae and Kennedy (2022).

Planned lessons lead to an organized and effective process of teaching and learning, preventing the waste of time and resources while making teachers more systematic and goal-oriented. It enables teachers to function more effectively in the classroom by giving a detailed outline that they adhere to during each class, boosting their confidence, preventing anxiety, and making them more organized. It helps to maximize the possibility of having purposeful learning sessions with students. More importantly, it enables teachers to consider the diverse expectations and characteristics of their students, such as cognitive abilities, interests, cultural and family backgrounds, as well as skills and capacities. These will invariably enable students to understand their lessons and improve their academic performance (Iqbal et al., 2021; Kiani et al., 2022; Tursunovich, 2022).

4. CONCLUSION

The study highlights several key factors that can be used to measure teachers' effectiveness. These factors were seen to contribute to students' learning optimization. The factors include instructional planning and delivery, classroom management, self-control, pedagogical knowledge, practical wisdom, and differentiated instruction. The importance of possessing positive personal traits like care, empathy, creativity, and practical wisdom is also recognized. The study emphasizes the need for teachers to reflect on their practices and prioritize instructional planning, individualizing instruction, and modifying their curriculum, teaching methods, and resources according to students' needs and questions. Recognizing the importance of possessing positive personal traits like care, empathy, creativity, and practical wisdom will go a long way in optimizing student learning experiences.

There was a significant difference in the effect of different determinants of teachers' effectiveness on students' learning optimization. Instructional planning had the highest impact on students' learning. It is important the policy makers and school leaders to prioritize instructional planning in teacher professional development programme. The teacher as the instructional planner must organize and prepare clear and measurable instructional objectives, select appropriate teaching methodology and instructional materials, possess effective classroom management, positive traits, good communication skills, plan evaluation strategy and be filled with and select the right practical wisdom as the situation may demand.

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