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Emotion and Motivation, Self-Regulation, and Views on the Nature of Science (Nos) as Factors of Teaching Competence among Science Teachers

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Abstract. Teaching competence has a direct impact on student learning outcomes. It ensures excellent education by enabling teachers to manage classrooms, adapt to various learners, deliver curricula, and ultimately support students' academic and personal growth. The primary purpose of this study is to determine whether self-regulation and views on the nature of science are factors of teaching competence among Science Teachers. Despite the increasing acknowledgment of the significance of emotion, motivation, self-regulation, and views on the nature of science, disparities exist in how much these are factors of teaching competence among science teachers. Three hundred participants in the study are science teachers in secondary public schools in Cateel (Districts 1 and 2), Baganga, and Boston, all of which fall under the purview of Davao Oriental. This study utilized a quantitative non-experimental research design using a correlational technique. The results showed that self-regulation is often demonstrated: the nature of science is consistently presented, and teaching competence among science teachers is consistently shown in their science classes. Specifically, the relationships between self-regulation and teaching competence, as well as the nature of science and teaching competence, were found to be significant. However, both self-regulation and the nature of science could be substantial factors in teaching competence among science teachers. As a result, it is recommended that teachers must make a significant effort in enhancing and developing the profession to provide excellent education to the learners.

Keywords: Self-regulation; Nature of Science; Teaching competence.

1.0 Introduction

One of the most essential elements in explaining student learning is teaching competence. Given how intricate and multifaceted education is, educators must possess the knowledge and abilities necessary to manage the demands in their daily roles (Jentsch & König, 2022). The teaching abilities of science teachers strongly influence academic teaching achievement in science. It develops the students' capacity for scientific inquiry and their comprehension of complex scientific ideas, ultimately fostering their scientific literacy (Canuto et.al, 2024).

The need for highly competent teachers has increased in today's rapidly changing educational environment. Since they must be critical thinkers who constantly assess and enhance their methods in response to student performance and feedback. Incorporating innovative teaching strategies and fostering a positive learning environment is needed. Enhancing teaching competence is therefore essential in ensuring educational success and in building a generation of learners equipped for future challenges (Adeoye et.al, 2024). Teachers who possess the

appropriate techniques, resources, and attitude foster a constructive and encouraging learning environment. Students are encouraged to participate actively and think critically. Students get more involved, retain information better, and are more likely to achieve their potential (Barkley et.al, 2020).

Emotion and motivation self-regulation is a vital area of study within behavioral and cognitive neuroscience (Luria et.al, 2021). The quality of a teacher's motivation, in addition to its quantitative characteristics, should have a significant impact on the outcomes of their learners. For example, there should be a difference between intrinsic motivation to foster students' growth and extrinsic motivation to accomplish obligations to earn a wage. As noted by Wigfield et al. (2019), distinct motivational orientations are likely to encourage distinct instructional practices, which will have a varied impact on students.

Nature of Science generally refers to the sociology and epistemology of science; science as a method for studying and comprehending the natural world; and the contribution of the scientific community's values and beliefs to the advancement of knowledge (Akgun et.al, 2020). Nevertheless, more work remains to be done to determine the most effective model for teaching NOS (McComas et.al, 2020), and there is still disagreement over the key components of an instructional model that will improve teachers' and students' comprehension of NOS. As noted by Cerezo et.al (2022), certain features or components of NOS are more challenging to comprehend than others. This idea was supported by Bates (2023) in understanding whether there is a relationship between specific elements that enable teachers and students to learn implicitly, or the best kind of education to use when teaching NOS. Nonetheless, the actual connection is between students' grasp of NOS and understanding scientific concepts (Gardner, 2021).

Despite the increasing acknowledgment of the significance of self-regulation and the nature of science, disparities exist in how much these are factors of teaching competence among science teachers. Moreover, the researcher has not found any research that examined these variables together; the relationship between self-regulation and the nature of science is a factor of teaching competence among science teachers. The findings will be shared with educators, administrators, and policymakers to address and enhance the teaching strategies and styles of science teachers. In this instance, the proponent aims to determine whether self-regulation and the Nature of Science are factors of Teaching Competence among Science Teachers in Cateel, Davao Oriental.

This idea was supported by Abendaño et.al (2023), who stated that one of the problems in Davao Region's teaching competency is the insufficiency of ongoing professional development and training for educators, particularly those working in rural and underprivileged areas. New curriculum developments, contemporary educational technologies, and updated teaching methods are not readily available to many educators. Moreover, inadequate support for subject specialization also makes it more difficult for teachers to provide high-quality, relevant instruction, particularly in science and mathematics.

The results of this study will be shared with educators, administrators, and policymakers to inform practices and policies through public forums. The researcher also intends to publish the findings in a reputable international journal. Additionally, the University of Mindanao will receive a copy of the study, which will serve as a basis for future research. This education research also aligns with several Sustainable Development Goals (SDGs) established by the United Nations in 2015. Specifically, it supports SDG 3: Good health and Well-Being by providing educators with a strong sense of purpose, societal relevance, and personal fulfillment; SDG 9: Industry, Innovation, and Infrastructure by exploring contemporary scientific practices and foster inquiry-based learning environments; and SDG 17: Partnerships for the Goals by promoting access to authentic scientific practices and real-world problems. Through these contributions, the study demonstrates its relevance to global priorities for sustainable development.

2.0 Methodology

2.1 Research Design

This study utilized a quantitative non-experimental design of research using a correlational technique. According to Jopling (2019), the design provides summary data, specifically measures of central tendency, including the mean, standard deviation, and correlation between variables, or employing methods of analyzing correlations among multiple variables by using tests such as Pearson r and regression analysis. This study utilized a sampling technique called random purposive sampling. Generally, correlational studies use independent and dependent variables, but the effect of the independent variable is observed on the dependent variable without manipulating

the independent variable (Abu-Bader et al., 2021).

2.2 Participants and Sampling Technique

The respondents of the study were composed of 300 participants who are science teachers in secondary public schools in Cateel (Districts 1 and 2), Baganga, and Boston, all of which fall under the purview of Davao Oriental. These respondents who are currently employed and whose Plantilla numbers are in the Department of Education are included explicitly in this study because they are in a position to provide helpful information upon testing the study's hypothesis. The respondents are picked in such a way as to provide confidential answers to the questionnaire. Target respondents have the option to decline survey participation. They were encouraged to return the study questionnaire to the researcher for automatic disposal, but were not compelled to respond to it. Additionally, because individuals are given the choice to engage freely and without facing any consequences or penalties, they are allowed to stop taking part in the research process at any time if they feel uncomfortable with it.

2.3 Research Instrument

The research instruments used in the study were in the form of an adapted questionnaire. Self-regulation was adapted from The Spanish Journal of Psychology (2014), entitled Development and Validity of the Emotion and Validation by Tapia (2014). Moreover, for Science Teachers' Views About the 'Nature of Science was adapted from Bulletin of Education and Research December 2009, "Secondary School Science Teachers' Views About the 'Nature of Science' by Iqbal, et.al (2009). Lastly, the adapted questionnaire for teaching competence among public school teachers was adapted from the Journal of Educational Health and Community Psychology (2016) entitled The Development of Indonesian Teacher Competence Questionnaire by Panggabean et.al (2016). The questionnaires were modified to fit the research objectives.

2.4 Data Gathering Procedure

Before the conduct of this study, the researcher obtained approval from the school's division superintendent of Davao Oriental to conduct the study. The approval of the school's division superintendent in the form of endorsement was forwarded to the Principals of Schools X, Y, and Z. Then, the researcher asked for approval to conduct the study in the three selected public schools. With the approval of the school heads, the researcher proceeds to the preliminaries of conducting the survey. The researcher oriented the respondents about the objectives of the study and assured the confidentiality of their responses to the questionnaires being utilized. The respondents shall answer the questionnaires, and following this, the researcher personally retrieved and secured their answers to make sure no questions were left unanswered. The researcher secured a certificate of appearance from the schools as proof that she conducted the study. Upon receiving all the responses of the respondents, the researcher tallied the results, which were then forwarded to the assigned statistician for computation and interpretation of the data retrieved. The entire data collection process lasted for approximately six weeks, from November to December 2024.

2.5 Data Analysis Procedure

As for the interpretation and analysis of the data, the following statistical tools were employed: at a significance level of 0.01, the following statistical techniques were used to calculate the data and test the hypotheses: mean was used to assess the emotion and motivation self-regulation, and teaching competence among science teachers; Pearson Product Moment Correlation (Pearson r) was used to determine the significance of the relationship between views on nature of science and teaching competence among science teachers.

2.6 Ethical Considerations

The conduct of this study takes ethical issues and considerations into account, notably before data collection. The researcher was subjected to scrutiny from the ethics review committee members. The UM Ethics Review Committee marked this study as passed after going through several review processes. The respondents' involvement in the study was entirely optional, anonymous to safeguard their privacy, and they were informed whenever they had questions before deciding whether to join or not. As a researcher, I am obligated to keep all information confidential and use it exclusively in my study. The respondents were not asked to give their names, ensuring the anonymity of their identities. The Data Privacy Act of 2012, which protects respondents from the improper processing of their private or identifying information, was followed in this research, assuring respondents that their responses cannot be traced back to their sources, protecting their identity. All participants in the study have given their informed consent.

3.0 Results and Discussion

3.1 Level of Emotion and Motivation Self-Regulation

The level of Emotion and Motivation Self-Regulation involves managing emotions, thoughts, and behaviors, controlling impulses, managing stress, and staying focused on goals by being aware of emotional state and choosing appropriate responses. Presented in Table 1 is the level of views on the nature of science, which revealed an overall SD of 41 and a total mean rating of 4.67, indicating a very high level of agreement. This means that the Self-Regulation has its factors of teaching competence among science teachers in public schools.

Table 1. *Level of Self-Regulation*

Indicator	SD	Mean	Descriptive Level
Avoidance-Oriented SR	0.42	4.78	Very High
Performance Oriented SR	0.60	4.52	Very High
Positive SR of Motivation	0.47	4.71	Very High
Process Oriented SR	0.46	4.68	Very High
Overall	**0.41**	**4.67**	**Very High**

This indicates that the level of views on the nature of science was evident. The result suggests that recognizing science as a dynamic, evidence-based, and ever-evolving discipline promotes critical thinking and inquiry-based learning. Teachers can emphasize scientific methods, creativity, and knowledge tentativeness, adapting teaching to diverse learning needs, enhancing student engagement and motivation, and promoting equity and lifelong interest in science education. The high-level ratings of Avoidance-Oriented Self-Regulation suggest that individuals often resist professional development opportunities or innovative teaching strategies due to fear of criticism or uncertainty, hindering their growth and teaching competence. Additionally, the result is supported by Olivier et al. (2019), who suggest that it can lead to a rigid and less engaging classroom environment, which lowers students' motivation for learning science and their academic performance. Eva (2022) supports that teachers who use avoidance strategies may struggle with stress management, leading to emotional exhaustion and decreased classroom enthusiasm.

3.2 Level of Views on Nature of Science

The Nature of Science outlines the principles and ideas of science, emphasizing its development and interpretation through evidence, observation, experimentation, and reasoning. Presented in Table 2 is the level of views on the nature of science as measured by five indicators, namely: scientific theories, role of scientist, scientific knowledge, scientific method, and scientific laws.

Table 2. *Level of Views on Nature of Science*

Indicator	SD	Mean	Descriptive Level
Scientific Theories	0.53	4.54	Very High
Role of Scientist	0.49	4.55	Very High
Scientific Knowledge	0.56	4.39	Very High
Scientific Method	0.49	4.47	Very High
Scientific Laws	0.53	4.55	Very High
Overall	**0.46**	**4.50**	**Very High**

Based on the result, the level of views on the nature of science is very high, with an overall mean of 4.50. The level of opinions on the nature of science is very high, which means it is evident among science teachers in public schools. This stipulates that the level of nature of science was evident. The result suggests that recognizing science as a dynamic, evidence-based, and ever-evolving discipline promotes critical thinking and inquiry-based learning. Teachers can emphasize scientific methods, creativity, and knowledge tentativeness, adapting teaching to diverse learning needs, enhancing student engagement and motivation, and promoting equity and lifelong interest in science education.

The high ratings of key indicators suggest that emphasizing scientific skills, methodologies, and values in education enriches the learning experience and aligns with contemporary views, preparing students for thoughtful engagement with scientific advancements. Further, among the (5) indicators, *the role of a scientist* has gained the highest mean of 4.55, and *scientific laws* have a mean of 4.55, indicating a very high level. This suggests that the role of scientists provides teachers with enhanced content knowledge, exposure to current scientific research, and innovative teaching strategies, thereby enhancing the effectiveness of science instruction. This result aligned with the study of (Bantwini, 2019), indicating that continuous learning fosters scientific inquiry in

classrooms, benefiting student learning. Mastering scientific laws and pedagogical strategies leads to scientifically literate and inquiry-driven students.

3.3 Level of Teaching Competence

The level of Teaching Competence involves a teacher's knowledge, skills, attitudes, and professional behaviors to facilitate students' active learning. Presented in Table 3 is the level of teaching competence as measured by five indicators, namely: professional knowledge, professional skill, personal characteristics, ethical standards and values, and professional development and lifelong learning. The result revealed an overall SD of 0.31 and a total mean rating of 4.53, labeled as Very High. This signifies that high teaching competence, including professional knowledge, skills, ethics, and lifelong learning, enhances student learning experiences and academic achievement, increasing engagement and effective classroom management, and adapting methods to diverse student needs. Teachers with a strong understanding of their subject matter can effectively explain complex concepts, enhancing students' comprehension and retention of information. High teaching competence is crucial for improving student outcomes and preparing future generations with the necessary skills to contribute meaningfully to the world.

Table 3. *Level of Teaching Competence*

Indicator	SD	Mean	Descriptive Level
Professional Knowledge	0.34	4.10	High
Professional Skill	0.28	4.39	Very High
Personal Characteristics	0.49	4.61	Very High
Ethical Standards and Values	0.43	4.72	Very High
Professional Development and Lifelong Learning	0.38	4.83	Very High
Overall	**0.31**	**4.53**	**Very High**

Further, among the five indicators, *professional development and lifelong learning* gained the highest mean of 4.83, indicating a very high level. This recommends that professional development and lifelong learning play a significant role in the success of science teachers in schools. These results align with the study of (Karmakar et.al, 2023), indicating that a well-trained teacher not only imparts knowledge but also fosters analytical thinking and practical application of knowledge in real-world scenarios. Attending teachers' training and professional development seminars ensures continuous skill improvement, benefiting students and society in the long run.

3.4 Correlation between Emotion and Motivation, Self-Regulation, and Teaching Competence

Table 4 presents the correlation between self-regulation and teaching competence. As shown in the table, the correlation obtained an overall r-value of 0.600 with a p-value of 0.000, which is below the 0.05 level of significance. This indicated that there is a significant relationship between emotion, motivation, self-regulation, and teaching competence. Therefore, the null hypothesis of no significant relationship between self-regulation and teaching competence is rejected.

Table 4. *Correlation between Emotion and Motivation, Self-Regulation, and Teaching Competence*

Emotion and Motivation Self-Regulation	Teaching Competence					
	PK	PS	PC	ESV	PDLL	Overall
Avoidance-Oriented SR	.450**	.515**	.458**	.565**	.470**	.606**
	0.000	0.000	0.000	0.000	0.000	0.000
Performance Oriented SR	.267**	.508**	.482**	.442**	.336**	.508**
	0.000	0.000	0.000	0.000	0.000	0.000
Positive SR of Motivation	.414**	.523**	.440**	.482**	.425**	.561**
	0.000	0.000	0.000	0.000	0.000	0.000
Process Oriented SR	.330**	.583**	.508**	.562**	.436**	.599**
	0.000	0.000	0.000	0.000	0.000	0.000
Overall	.423**	.631**	.562**	.602**	.487**	.669**
	0.000	0.000	0.000	0.000	0.000	0.000

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

It can also be viewed from the table that emotion and motivation self-regulation is significantly correlated to teaching competence, since the p-value is 0.000 and the overall r-value of avoidance-oriented self-regulation is 0.606, performance-oriented self-regulation is 0.508, positive self-regulation of motivation is 0.561, and process-oriented self-regulation is 0.599. Moreover, data revealed that emotion and motivation self-regulation is positively correlated with teaching competence as the indicators showed the following r values: *professional knowledge with* 0.423, *professional skill with* 0.631, *personal characteristics with* 0.562, *ethical standards and values with* 0.602, *and professional development and lifelong learning with* 0.487; and the p-value 0.000. Thus, the five variables are

significantly associated. This pertains to the fact that there is a positive link between emotion, motivation, self-regulation, and teaching competence.

The correlation between self-regulation and teaching competence revealed a significant relationship. It can be attributed to several factors, as both play essential roles in shaping an educator's effectiveness in the classroom. This result supports the study of Pekrun (2021), highlighting a positive relationship between self-regulation and teaching competence, in which teachers become more competent and effective, ultimately fostering a supportive and inspiring learning environment. Thus, motivation fueled by positive emotions enhances perseverance and dedication, leading to a more effective and fulfilling teaching experience. Subsequently, the result aligns with Raja et al. (2023) that self-regulation significantly enhances teaching competence by allowing educators to navigate challenges with confidence and maintain their passion for teaching. By managing their emotions, teachers foster a supportive and engaging classroom atmosphere, while self-regulation ensures sustained commitment to professional growth. These skills not only benefit educators but also positively impact students by promoting a culture of learning, resilience, and emotional intelligence.

3.5 Correlation between Nature of Science and Teaching Competence

Shown in Table 4.2 is the correlation between the measures of views on the nature of science and teaching competence. It can be seen from the table that views on nature of science is correlated with teaching competence, the overall r-value results to 0.619 with a p-value of 0.000 which is less than 0.05 level of significance and that can be a proof to reject the null hypothesis of no significant relationship of measures of views on nature of science between teaching competence.

Table 5. *Correlation between Views on Nature of Science and Teaching Competence*

Views on Nature of Science	Teaching Competence					
	PK	**PS**	**PC**	**ESV**	**PDLL**	**Overall**
Scientific Theories	.125*	.402**	.497**	.602**	.446**	.533**
	0.030	0.000	0.000	0.000	0.000	0.000
Role of Scientist	.284**	.576**	.575**	.608**	.467**	.631**
	0.000	0.000	0.000	0.000	0.000	0.000
Scientific Knowledge	.180**	.402**	.441**	.549**	.429**	.509**
	0.002	0.000	0.000	0.000	0.000	0.000
Scientific Method	.225**	.450**	.409**	.520**	.461**	.517**
	0.000	0.000	0.000	0.000	0.000	0.000
Scientific Laws	.253**	.511**	.449**	.583**	.484**	.569**
	0.000	0.000	0.000	0.000	0.000	0.000
Overall	.239**	.524**	.532**	.643**	.514**	.619**
	0.000	0.000	0.000	0.000	0.000	0.000

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

This suggests that the nature of science is positively correlated with teaching competence, as the indicators revealed the following r-values: scientific theories with 0.533, role of scientist with 0.631, scientific knowledge with 0.509, scientific method with 0.517, and scientific laws with 0.569; and the p-value is 0.000. Also, data revealed that views on the nature of science are positively correlated with teaching competence, since the p-value is 0.000 and the overall R-value of personal knowledge is 0.239, professional skill is 0.524, personal characteristics is 0.643, and ethical standards and values is 0.514. Professional development and lifelong learning are 0.619. Thus, the five variables are significantly associated. This suggests that teachers with a comprehensive understanding of science can offer students a deeper understanding of the development of science through inquiry, observation, and experimentation. This approach encourages students to view science as a discovery, rather than just memorizing information. Also, (Cofré et al., 2019) explained that when teachers acknowledge the historical and philosophical aspects of science, they encourage students to appreciate the evolution of scientific knowledge over time. Scientific theories and laws are constantly evolving and improving through new evidence and technological advancements. The correlation between measures revealed a significant relationship between views on the nature of science and teaching competence.

The result of the study is subsequently affirming (Aznam, 2020) that a teacher who understands these aspects is better equipped to promote scientific inquiry, stimulate curiosity, and enhance students' analytical skills. This foundation enables educators to present science not just as a collection of facts but as a dynamic and investigative process. Teachers enhance science education by improving teaching strategies, correcting misconceptions, and fostering scientific inquiry and critical thinking, preparing students for lifelong learning and informed citizenship.

The result of the study confirms the study of (McComas et.al, 2020). A positive correlation was found between views on the nature of science and teaching competence, suggesting that increased knowledge of the nature of science fosters better teaching strategies, deeper student understanding, and a more engaging classroom environment. The strong correlations between the role of a scientist (r=0.631), scientific laws (r=0.569), and scientific theories (r=0.533) suggest that as these three indicators are used, teachers integrate depth of knowledge, effective pedagogy, inquiry-based learning, ability to address misconceptions, and curriculum integration to the students. Integrating these scientific elements into the lessons makes science more engaging and applicable to real-life situations.

3.6 Significance of the Relationship between the Nature of Science Indicators and Teaching Competence

This section presents the results identifying the significant influence of emotion, motivation, self-regulation, and views on the nature of science indicators towards teaching competence. Shown in Table 5 are the regression coefficients to test whether emotion, motivation, self-regulation, and views on the nature of science indicators significantly predict teaching competence. The results show that these factors can predict teaching competence, as indicated by an F-value of 72.055 and a p-value of 0.000, which implies that the overall predictor is significant. Therefore, the null hypothesis stating that emotion and motivation, self-regulation, and views on the nature of science do not significantly predict teaching competence is rejected.

Table 6. *Significance of the Relationship between Views on Nature of Science Indicators towards Teaching Competence*

Predictors	Unstandardized Beta	SE	Stand. Beta	t	P-value
Constant	1.701	.153		11.116	.000
Role of Scientist	0.232	.045	.365	5.117	.000
Avoidance Oriented SR	0.223	.039	.298	5.639	.000
Scientific Laws	0.150	.034	.256	4.389	.000
Scientific Knowledge	0.113	.039	.206	2.889	.004
Process Oriented SR	0.112	.039	.165	2.849	.005
$R = 0.742$					
$R^2 = 0.551$					
$F = 72.055$					

The data also revealed that when the role of scientist, avoidance-oriented self-regulation, scientific laws, scientific knowledge, and process-oriented self-regulation are regressed on teaching competence, an R^2 of 0.551 is generated, which implies that these variables can explain 55.1% of the variance in teaching competence. Among the predictors, the role of a scientist had the highest standardized beta (ß = 0.365, p = 0.000), suggesting that it has the most potent effect on teaching competence. This was followed by avoidance-oriented self-regulation (ß = 0.298, p = 0.000), scientific laws (ß = 0.256, p = 0.000), and scientific knowledge process-oriented (ß = 0.206, p = 0.000), all of which also showed significant positive relationships. These findings used standardized beta instead of unstandardized beta since this enables fair comparison of the predictors and emphasizes the interconnected framework of the role of scientists, avoidance-oriented self-regulation, scientific laws, scientific knowledge, and process-oriented factors in terms of teaching competence of the science teachers.

Furthermore, these findings support (Alfarraj et al., 2024). Scientists significantly enhance science education by contributing to accurate subject knowledge development and equipping teachers with the latest scientific discoveries and methodologies. Moreover, they can later integrate into classroom activities that promote critical thinking and curiosity among students. Additionally, they assist educators in integrating modern methodologies and practical experiments into their teaching by bridging the gap between scientific research and classroom instruction. Collaboration enhances the credibility of science education, making learning more engaging and meaningful. Scientists' active participation ensures teachers remain competent in nurturing future scientifically literate individuals.

4.0 Conclusion

Based on the findings presented, several conclusions were drawn. The study revealed a very high level of Emotion and motivation self-regulation. The highest indicator was avoidance-oriented self-regulation, suggesting that individuals often resist professional development opportunities or innovative teaching strategies due to fear of criticism or uncertainty, hindering their growth and teaching competence. Additionally, the study indicated a very high level of nature of science, emphasizing strong evidence among science teachers in public schools. The level of teaching competence was also rated very high, highlighting the significant factors among science teachers

that teachers with a strong understanding of the subject matter can effectively explain complex concepts.

Furthermore, statistically significant relationships were observed between self-regulation and teaching competence, as well as the nature of science, which can be attributed to several factors, as both play essential roles in shaping an educator's effectiveness in the classroom. Moreover, the roles of scientist, avoidance-oriented self-regulation, scientific laws, scientific knowledge, and process-oriented self-regulation were identified as significant influences on the teaching competence of science teachers.

In addition, these findings align with Medley's theory, which focuses on the relationship between teacher performance and student learning, emphasizing the idea that the teacher's primary responsibility is to engage in activities that promote student achievement. Teachers' effectiveness is a multifaceted concept that encompasses not just a teacher's knowledge and skills but also their ability to engage students, create a conducive learning environment, and deliver meaningful learning experiences.

5.0 Contribution of Authors

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6.0 Funding

None declared.

7.0 Conflict of Interest

None declared.

8.0 Acknowledgment

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9.0 References

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