Psych Educ, Document ID: PEMJ0, doi: 10.5281/zenodo.6968826, ISSN 2822-4353
Research Article

Secondary Science Teachers' Attitudes and Performances Correlate with Schools' Performances During Modular Distance Learning

Noraysa B. Kasan*, Alyahza L. Kasan, Nor Ayn A. Salindao, Haron A. Mohamad
For affiliations and correspondence, see the last page.

Abstract

The study aims to determine the correlation of science teachers' attitudes and performances with the schools' performances of public secondary schools during Modular Distance Learning in Maguindanao II Division. Specifically, it determines the science teachers' scientific attitudes and performances and schools' performances during Modular Distance Learning. Quantitative research design was used in this study. There were 30 secondary science major teachers and 30 school heads participants. An adopted and modified survey questionnaire was used to gather the data. The data were gathered and analyze using statistical tools such as weighted mean, correlation, standard deviation and regression analysis. The result revealed the following: First, Science teachers' Scientific attitudes during Modular Distance Learning in terms of scientific behavior, scientific belief, and views toward Modular Distance Learning are positive. Second, teachers' performances as administrator, teacher, and adviser during Modular Distance Learning are high. It means that Science teachers performed their task responsibly. Third, secondary public schools' performances during Modular Distance Learning are above average. This means that Science teachers frequently agree that school's objective is attained. Fourth, there is a significant relationship between science teachers' scientific attitudes in terms of views toward Modular Distance Learning and schools' operational performance. Fifth, there is a significant relationship between science teachers' performances as administrator and teacher and schools' economic and operational performances. Lastly, the teachers' performances best influence the schools' performances.

Keywords: Modular Distance Learning, Science Teachers, Schools' Performances

Introduction

Attitudes reflect an individual's positive or negative feeling, belief and behavior towards a situation (Eagly & Chaiken, 2007; Atkinson, Smith, Bem & Hoeksema, 2010). It is essential for science teachers because it shows their inner view for education. Science teachers' attitudes determine their success in achieving their set of goals. Their attitude to teaching is clearly seen through their scientific behavior, practices and values.

Scientific attitudes are the desire to know, understand, apply, verify an approach and consideration of consequences (Gardner, 1975; Osborne, Simon & Collins, 2003). It is a mental attitude characterized by willingness to search for truth and prejudice to change one's opinion based on new evidence. It affects the performance of science teachers in the classroom and how they plan for their lessons. It influences teacher's performance positively or negatively.

Teachers' performances reflect the teachers' roles, duties and responsibilities to administer, teach and advise their clientele. It is consequently a key element in the success of the school. It upholds the role of teachers as the most important human resource in an academic institution. The higher the performance of teachers in carrying out their duties and responsibilities, the higher the quality of graduates and the performance of the school in general (Hidayat & Zaini, 2017).

Schools' performances reflect the schools' organizational capacity to achieve its goals, and objectives set to serve its clientele (Lamas, 2007). It is the result of learning, prompted by the teaching activities of the teachers and manifested by the students. It is a measure of the indicative and responsive abilities that express, in an estimated way, what a person has learned as a result of the process of education. In the Philippines, school performance is regularly supported by the Department of Education through the introduction of responsive modalities of learning, one of which is the Modular Distance Learning especially during the period of pandemic.

Modular Distance Learning is an individualized instruction that allows learners to use self-learning modules (SLMs) or Learning Activity Sheets (LAS) in print or digital format/electronic copy, based on the Most Essential Learning Competencies (MELCs) provided by DepEd (Flipscience, 2020). In Maguindanao II Division, this learninsg modality is currently used by all public schools because according

to a survey conducted by the Department of Education (DepEd), learning through printed modules emerged as the most preferred learning modality of parents with children who are enrolled in school year 2020- 2021 (Bernardo, 2020). This modality of learning that may gain positive or negative results, needs to be adopted by the teachers. Such modality affects the science teacher's performance and attitude in teaching and learning process.

Science teachers must lead laboratory works and "real" application of theories that involve students in Scientific Investigation. However, since public schools have completely no face-to-face classes particularly in science, it is interesting to know the science teachers' scientific attitude and performance during Modular Distance Learning Modality through their experiences in terms of preparation, teaching engagement, and challenges. And also determining which of science teachers' scientific attitudes and performances best influence the schools' organizational performances. It is beneficial not only for science teachers but also for school heads and education as a whole. Their attitudes and performances may affect school as an organization.

As an organization, school is a place where formal education takes place (Infoplus, The Scholars' Corner, 2017). It is a social system comprising of a group of people that interact together to achieve both school and individual goals. In this regard, a school must be a safe and organized place where clear set of general rules and school discipline are in order. It must be supportive where learners' and teachers' attitudes are focused on the teaching-learning process.

In Bangsamoro Autonomous Region in Muslim Mindanao, school performance is an issue that deeply concern not only academe sector but also stakeholders such as parents, students and authorities. Challenged by the archipelagic topography, the BARMM Region particularly Maguindanao II Division exhibited a huge struggle in coping with the educational consequences brought by the pandemic. With the introduction of DepEd's Modular Distance Learning Modalities, the digital learning seems the most least option. The drastic need to implement remote working following the Covid-19 pandemic left teachers scramble to ensure to be effective and efficient in dispensing their performance while guaranteeing the learning of the students for many schools.

Research Questions

This study aims at determining the correlation of science teachers' scientific attitudes and performances with the schools' performances of public secondary schools during Modular Distance Learning in Maguindanao II Division. Specifically, it answers the following questions:

1. Is there a significant relationship between secondary science teachers' scientific attitudes and schools' performances?
2. Is there a significant relationship between secondary science teachers' performances and schools' performances?

Literature Review

Attitudes

An individual's good or negative sensation, belief, and behavior toward an event, or situation can be described as attitudes (Eagly & Chaiken *et al.*, 2007). Furthermore, it can be described as acquired and psychological characteristics that influence an individual's behavior (Tavşancl *et al.*, 2014). Professional attitudes are a combination of an individual's emotions, conduct, and beliefs about the profession (Hammer, 2000). Teachers with good attitudes toward their job are likely to improve their competencies and perform better in their positions (Bozdoan, 2007).

There are three components to attitude. The first component is cognitive, which includes an individual's perception and belief. The affective component pertains to the individual's feelings about the object of attitude and emotion. Finally, there is the conative component, which includes the proclivity to respond or react to something in a specific way (Azwar, 2011; Meidha, 2017). People who agree on something have a good attitude, whereas those who disagree have a negative attitude (Meidha, 2017).

Attitudes governs behavior directed toward or away from an object or situation (Ekawati, 2017). It contains emotional content that fluctuates in strength and generality based on the items or events to which it has been applied. Positive attitude cultivators, both educators and pupils, are more effective in work (Mattern & Schau, 2002; Erdogan, 2017). The attitudes of science teachers toward teaching science affects their teaching, which in turn influences student achievement and interest (Harlen, 1997). It is a major predictor of a person's conduct that effects how a teacher interacts with students and, as a result, affects their students' academic and school's success.

Establishing behavioral expectations for students, faculty, and visitors that promote a positive and respectful outcome, as well as culture and school environment, are critical to maintaining a safe school community. As a result, good performance and a positive relationship between instructors, students, and parents will result in good organizational school performance (Infoplus, The Scholar' Corner, 2017).

Scientific Attitudes

Teachers' scientific attitudes toward science education influence not just their own performance, but also the success, performance, and attitude of their students, hence increasing school performance (Altnok *et al*., 2004). It is an integrated component of conduct that comprises intellectual honesty, skepticism, open-mindedness, dealing with facts, and inventiveness (Ekawati, 2017). Furthermore, open-minded science teachers are willing to consider opposing viewpoints and respect the thoughts of others. Open-mindedness is essential in educating pupils on how contextual elements (economic, historical, religious, geographic, political, and technical) impact how people think and live in their own neighborhood or around the world (Merryfield, 2012).

The most essential outcomes of science education are scientific behavior. It established societal ethics and principles like honesty, logic, objectivity, and the ability to make decisions based on accurate knowledge. As a result, the teacher is the most significant person in the development of pupils' scientific attitudes (Murugan, 2019).

Teachers' Performances

Teachers' performance is defined as a sequence of process actions carried out by teachers in carrying out their tasks and jobs to the best of their abilities in order to achieve institutional goals. It will be most effective if it is combined with school components such as principals, administrators, and adequate work infrastructure (Savtri, 2020 & Sudarsyah, 2020). It can be measured by teachers' competence at the time of his teaching. Teachers cannot be detached from many difficulties and work issues while carrying out their duties and jobs, notably during the Covid-19 pandemic.

Improving teacher effectiveness is essential for improving educational quality and delivering high-quality graduates. It is accomplished in a variety of methods, including the use of school-based management to assist the principal in updating teacher training and supervision in a creative, planned, directed, and ongoing manner, in order to encourage the attainment of increasing teacher performance. To remain relevant and engaging, teachers must have 21st century abilities (Corpuz & Salandanan, 2012).

Teachers' primary responsibility is to transfer knowledge, enhance students' skills, and motivate them. However, teachers are unable to commit their efforts to these activities due to the onerous administrative chores, such as exam preparation, drafting detailed lesson plans, data tracking, and involvement in extracurricular activities. This saps teachers' vitality and diverts them from their primary responsibility as educators (Fayyoumi, 2018).

Concept of Performance

Employee's performance has a favorable impact on organizational performance (Tarmidi, & Arsjah, 2019). It is an effort combined with the ability to put out effort backed by organizational policies in order to attain specific goals (Aguinis, 2009; Assibi, 2019). Human resources are recognized as the most important asset for any organization's good and effective performance around the world. Employees are influenced by a range of internal and external forces while they do their tasks. Employers that are aware of these forces and work to resolve them can boost productivity, loyalty, and, ultimately, organizational performance (Twalib & Karuiki, 2016).

Teachers' performances have a direct impact on students in an educational context. Given the challenges in learning delivery this school year, the DepEd's Bureau of Curriculum Development (BCD) produced the K to 12 MELCs and its related guidelines, which were authorized by Education Undersecretary for Curriculum and Instruction Diosdado San Antonio. The MELCs, according to its standards, are part of the department's approach to developing resilient education institutions, particularly during emergencies (Pascua, 2020).

Schools' Performances

In the educational literature, organizational performance is a complex and multidimensional issue. It consists of an organization's results or actual outputs that may be measured against anticipated outputs, goals, and objectives. Organizational performance is comprised of three aspects: financial performance, stakeholder support, and product or customer performance (Gavrea *et al*., 2011). Most organizational performance studies establish

performance as a dependent variable and seek to discover variables that cause changes in performance (Chandler *et al*., 2011).

Financial management is an important component in determining how effectively the school is managed or has achieved its objectives (Ajaegbo, 2009). As the Philippine government pays for the budgetary needs of public schools, the Department of Education defines the role of the principal in school financial management (Zarate, 2009). Financial management in schools frequently presents a broader frame of management that includes all stakeholders, as required by the Department of Education. Within this framework, power at the school level is not just centralized around the principal, but is also shared by other key stakeholders. This advocated for active participation of teachers in school governance and decision-making processes, such as financial matters (Chaka 2008).

Organizational Climate and Performance

One of the most promising explanations for change and development in organizational performance relies on the contribution of the work environment and organizational climate (Vashdi, Gadot, & Shlomi, 2013). The organizational environment is a social structure that can either support or hinder performance, and it can thus be viewed as a buffer between individual abilities, motivation, and other work outcomes (Schneider, 1975; Vashdi, *et al*., 2013). Climate has also been found to be a crucial intermediate element between employees' abilities and motivation on the one hand, and a range of performance-related characteristics on the other (Kopelman *et al*.,1990; Vashdi *et al*., 2013).

According to research, working conditions, which include facility quality, school leadership, and growth opportunities, influence a variety of significant outcomes, including worker satisfaction and student performance (Johnson *et al*., 2012; Ladd, 2011). Working conditions may thus be related to a teacher's sentiments of trust in their principle, as teachers may impute favorable or negative working conditions to their principal. Furthermore, partnerships in schools where teachers feel empowered and encouraged by their leadership and have time to actively interact with their colleagues are justified (Moye, Henkin, & Egley, 2005; Tschannen, 2009).

Because the present pandemic requires all schools to suspend classroom instruction, children can benefit from a shift to distance learning (Sahu, 2020). This method of learning offers an alternative option to reduce contact between students or between students and lecturers (Pragholapati, 2020). However, many students do not have access to online education due to a lack of either means or tools as a result of the economic and digital gap (UNESCO, 2020). One significant effect of school closures is an increase in educational disparities among pupils in the same cohort (Engzell, Frey & Verhagen, 2020).

Despite the DepEd and Local Government Unit's encouragements to enroll children of school age in schools, some parents prefer to withdraw their children from school and wait for normal classes to resume. In general, a reduction in enrollment rates affects school performance. This new normal is putting the efficiency and effectiveness of teacher performance and attitude to the test. However, this can also offer up new avenues for discovering new academic and administrative strategies to maintain quality education despite the pandemic, resulting in Modular Distance Learning Modality. Previous investigations and the literatures were once challenges that were sought to be answered. The tactics, approaches, and plans of action used to address them are now lessons learnt from which new ones might be drawn.

Modular Distance Learning

Modular Distance Learning is a teaching method in which students must learn everything in the module on their own time and at their own pace (Gonzales, 2015). It is an alternative to the issues that students have in the traditional classroom because it is student-centered, self-paced, and does not need note-taking. Learning through printed and digital modules emerged as the most favored distance learning mode of parents with children enrolled in 2020-2021, according to a poll done by the Department of Education (DepEd) (Bernardo, 2020).

One of the benefits of modular distance learning is that teachers become more receptive to the problems posed by the pandemic. Some teachers see the pandemic as an opportunity for educational advancement, creating self-learning modules (SLMs) that compile all of the necessary lessons and objectives based on the Most Essential Learning Competencies into a single module for multiple topics every quarter (Anzaldo, 2021). Furthermore, the Ministry of Basic, Higher, and Technical Education in the Bangsamoro Region of Muslim Mindanao (MBHTE-BARMM) supplied printing supplies to schools to aid in the implementation of the region's learning continuity strategy. A total of 1,550 boxes of bond paper

supplies for Special Geographic Areas (SGA) were distributed to 85 public primary schools.

Despite the fact that purchase of printing supplies was not included in the Bangsamoro Appropriations Act of 2020, the MBHTE is committed to sustaining educational continuity in the face of pandemic concerns. The Ministry's dedication to improving the level of education in BARMM will aim to deliver quality education and service to Bangsamoro learners and instructors (Iqbal, 2021).

Methodology

Research Design

Quantitative research design was used in this study. Specifically, it utilized a combined descriptive-correlational survey method. It is descriptive because it described the science teachers' scientific attitudes, teaching performances and school performances of public secondary schools in Maguindanao II, BARMM region during Modular Distance Learning. Meanwhile, correlational since it measured the degree of relationship between the aforementioned independent variables and the school performances as the dependent variables.Moreover, a survey method was administered for collecting data in a relatively short period.

Locale of the Study

This was conducted in 30 secondary public schools of Maguindanao II Division of Bangsamoro Autonomous Region in Muslim Mindanao (BARMM). The secondary schools are Amir Bara Lidasan National High School, ARMM Regional Science High School, B. Gallego-Edcor National High School, Bai Hanina National High School, Bugabungan National High School, Camp Darapanan Integrated School, Camp Siongco National High School, Datu Alamada Memorial National High School, Datu Alamanza Dilangalen National High School, Datu Arnel Datukon National High School, Datu Mantato National High School, Datu Mohammad Sr. Integrated School, Datu Usngan S. Mastura National High School, Dulangan National High School, Kabuntalan National High School, Dr. Bernabe G. De La Fuente Sr. National High School, Gayonga National High School, Kibucay National High School, Making Integrated Voc'l & Tech High School, Nangi National High School, Nuling National High School, Parang National High School, Ruth Manion Memorial National High School, Sabaken National High School, Samad Sumail National High School, Sarilikha National High School, Sulon National High School, Sultan Kudarat National High School, Sultan Mastura National High School and Upi Agricultural School.

Research Participants

The participants of this study were the 30 secondary Science major teachers and 30 school heads in selected public secondary schools of Maguindanao II Division with a ratio of 1 Science teacher and 1 school head in every school. The science teachers are permanent in status, teaching Science subject.

Research Instrument

An adopted and modified survey questionnaire was used to gather the data. The questionnaire has three parts. The first part deals with the scientific attitude of science teacher during Modular Distance Learning. The second part deals with the Science teacher's performance such as being an administrator, teacher and adviser.

Part three deals with the school performance which focused on economic and operational performance of the school. The responses for each indicator will use the following 5-point Likert Scale. typically, in five points: (1) Never; (2) Rarely Agree; (3) Occasionally Agree; (4) Frequently Agree; (5) Always Agree.

Data Gathering Procedures

A letter was delivered by the researcher to the Schools Division Superintendent of Maguindanao II to request permission to conduct a survey questionnaire to the participants of the selected secondary public schools of Maguindanao II Division. Upon approval of the request, the letter was sent to the principals and school heads requesting permission to administer the study in printed survey questionnaire. The researcher personally retrieved and administered all the data. Data was organized, tabulated and used as basis to statistically analyses.

Results and Discussion

Science Teachers' Scientific Attitudes and Schools' Performances

The correlation coefficient between science teachers' scientific attitudes and public schools' performances are as follows (Table 1).

Of the 3 indicators of science teachers' scientific attitudes paired with schools' performances' such as scientific behavior with r-Value of 0.186 for economic aspect and 0.192 for operational aspect, scientific belief with the r-Value of 0.188 for economic aspect and 0.249 for operational aspect, and views toward Modular Distance Learning with r-Value of 0.204 for economic aspect and 0.542 for operational aspect shows that scientific attitudes of science teachers has no significant relationship with schools' performances in terms of economic aspect. However, Science teachers' views toward Modular Distance Learning has significant relationship with schools' performances in terms of operational performance. Therefore, the null hypotheses 1 is accepted.

Table 1. *Correlation coefficient obtained from the association between science teachers' scientific attitude and public schools' performances (n=30)*

Paired Variables	Computed r-Value	Critical r-Value (5% level)	Interpretation	Decision
1. Scientific Behavior and Economic Performance	0.186	±0.361	Not Significant	Accept the null
2. Scientific Behavior and Operational Performance	0.192	±0.361	Not Significant	Accept the null
3. Scientific Belief and Economic Performance	0.188	±0.361	Not Significant	Accept the null
4. Scientific Belief and Operational Performance	0.249	±0.361	Not Significant	Accept the null
5. View Towards Modular Distance Learning and Economic Performance	0.204	±0.361	Not Significant	Accept the null
6. View towards Modular Distance Learning and Operational Performance	0.542	±0.361	Significant	Reject the null

- Computed r-Value to be significant at 0.05 level should be at least ±0.361.

This supports the idea a good relationship among workplace can be established when employees demonstrate a positive attitude towards their work and colleagues. In addition, some teachers can easily earn respect through the positive attitude demonstrated by head, thus earning respect from students, parents and colleagues. Further, a positive attitude helps employees to appreciate each other 's competencies and work as a team for achieving common objectives (Kumar, 2019). Further, during Modular Distance Learning, the happy or satisfied feeling of the teachers towards the organization affects the overall process in carrying their job, thus, contributes to the school success as a whole.

Table 1 implies that when science teachers' scientific attitude is positive, it is true that school performs well operationally. This means that through positive energy and emotion, work becomes a pleasure and science teachers find it easier to achieve their goals. Therefore, a positive attitude has significant benefits not only for individual aspect but also for the institution.

Science Teachers' Performances and Schools' Performances

The correlation coefficient between science teachers' performances and public schools' performances.

Of the 3 indicators of science teachers' performances, teachers' performance as administrator with the r-Value of 0.730 for economic aspect and 0.454 for operational aspect, teachers' performance as teacher with the r-Value of 0.528 for economic aspect and 0.447 for operational aspect has significant relationship with schools' performances while teachers' performance as adviser with the r-Value of 0.223 for economic aspect and 0.143 for operational aspect has no significant relationship with school's performance. Therefore, the null hypotheses 2 is rejected.

Table 2. *Correlation coefficient obtained from the association between science teachers' performances and public school's performances (n=30).*

Paired Variables	Computed r-Value	Critical r-Value (5% level)	Interpretation	Decision
1. Teacher's Performance as Administrator and Economic Performance	0.730	±0.361	Significant	Reject the null
2. Teacher's Performance as Administrator and Operational Performance	0.454	±0.361	Significant	Reject the null
3. Teacher's Performance as Teacher and Economic Performance	0.528	±0.361	Significant	Reject the null
4. Teacher's Performance as Teacher and Operational Performance	0.447	±0.361	Significant	Reject the null
5. Teacher's Performance as Adviser and Economic Performance	0.223	±0.361	Not Significant	Accept the null
6. Teacher's Performance as Adviser and Operational Performance	0.143	±0.361	Not Significant	Accept the null

- Computed r-Value to be significant at 0.05 level should be at least ±0.361.

The paired variables between teachers' performance as administrator and schools' performance in terms of economic aspectsupports the study that teachers' administrative chores, such as exam preparation, comprehensive lesson planning, data tracking, and

participation in extracurricular activities, help to establish, execute, and evaluate the school's policies, practices, and procedures, which promote the school's values and vision (Espinosa, 2017). In addition, when it comes to the use of monies supplied to public schools backed by teachers, notably the principal and school planning coordinator, like any other leaders of any organization, must make decisions (Atieno, 2012). This means that during Modular Distance Learning, teachers' performance as administrator has direct influence in decision of school heads in financial management which reflect the school's economic performance.

The paired variables between science teachers' performance as administrator and schools' performance in terms of operational aspect supports the study that employee's performance has a positive impact on organizational performance (Tarmidi, & Arsjah, 2019). In addition, it is similar to the study conducted in public primary schools of Calabar, it revealed that head teachers' decision-making strategy and leadership style have a significant influence on teachers' administrative performance. Also, head teachers' communication skills significantly relate to teachers' task performance in the area (Baluyos *et al*, 2019). This means that during Modular Distance Learning, when teacher performs well as administrator, it is true that school performs well operationally.

The paired variables between teachers' performance as teacher and schools' performance in terms of operational aspectis similar to the statement that one of the essential aspects that impacts the functioning of an organization's inside and outside bodies is performance. In educational setting, teacher is regarded as the most vital asset for good and effective performance of any schools worldwide. They are impacted by a variety of forces both internal and external as they seek to perform their duties. School heads who are mindful of these forces and are focused on resolving them can increase productivity, loyalty and eventually organizational performance (Twalib & Karuiki, 2016). Teachers that perform well in teaching improve organizational performance, which enhances competition, which is critical for businesses (Turunc, 2010).

The paired variables between teachers' performance as teacher and schools' performance in terms of economic aspect supports efficient financial resource management is a critical duty for school principals (Barasa, 2009). As leaders, they are frequently tasked with ensuring that financial resources are available to run the school's many departments (Cole and Kelly, 2011). The principals are supposed to set the funding available to meet instructional demands of teachers and students necessary in the teaching and learning process (Miriti & Wangui 2014). Funds could be used to buy supplies like chalk and textbooks in order to support the teachers in teaching process (Mito and Simatwa, 2012).

Predictors of Schools' Performances

As indicated in tables 1 and 2 as discussed earlier, there are five paired variables emerged significant. These are shown and summarized in Table 3.

It shows that the dependent variable, schools' performance in the aspect of economic and operational performance are influences by the following independent or predictor variables such as: The scientific attitudes of science teachers toward Modular Distance Learning (MDL), the teachers' performance as administrator, and the teachers' performance as teacher.

As indicated in the table, it is observed that the five (5) paired variables are fond significant at 5% level and these are the paired variables subjected to regression analysis. These paired variables are as follows with their corresponding regression equations based on the result of analysis: Views toward Modular Distance Learning and schools' operational performance, $Y = 1.07X - 0.48$; Teachers' Performance As Administrator and Schools' Economic Performance, $Y = 0.96X – 0.03$; Performance as Administrator and Schools' Operational Performance, $y = 0.98x – 0.0.45$; Teachers' Performance as Teacher and Schools' Economic Performance, $Y = 0.96 + 0.08$; and Teachers' Performance as Teacher and Schools' Operational Performance, $Y = 0.98X – 0.38$.

Table 3. *Summary of Regression Analysis for predicting schools' performances from Science teachers scientific attitudes and performance (n=30).*

Paired Variables	*Mean*	*Standard Deviation*	*Correlation Coefficient (r)*	*Coefficient Determination (r^2)*
Views toward Modular Distance Learning (X)	4.25	0.49		
And Schools' Operational Performance (Y)	4.05	0.49	0.542	29.4 %
Teachers' Performance as Administrator (X) and Schools' Economic Performance (Y)	4.60	0.46		
	4.40	0.60	0.730	53.3 %
Teachers' Performance as Administrator (Y) and Schools' Operational Performance (Y)	4.60	0.46		
	4.05	0.49	0.454	20.6 %
Teachers' Performance as Teacher (Y) and Schools' Economic Performance (Y)	4.52	0.48		
	4.40	0.60	0.528	27.9 %
Teachers' Performance as Teacher (X) and Schools' Operational Performance(Y)	4.52	0.60		
	4.05	0.49	0.447	20.0 %

The paired variable, Teachers' Performance as Administrator and Schools' Economic Performance appears to be the best predictor of school performance among the aforementioned five paired variables as a result of regression analysis, that is, using the regression equation, the higher the teachers' performance as an administrator, the better would be the schools' economic performance.This can also be shown by the coefficient of determination $r^2 = (0.73)^2 =$ 53.3% which indicates that53.3% of the variation in the schools' performance is associated with the teachers' performance as administrator. This means further that 46.7% in the variation of schools' performance is associate with the other factors that are outside or not part of the study. The other predictors of schools' performances arranged from highest to lowest coefficient of determination are as follows: Views toward Modular Distance Learning, 24.4%; teachers' performance as teacher, 27.9%; teachers' performance as administrator, 20.6%; and teachers' performance as teacher, 20%.

Conclusion

The independent variables in the study, which are science teachers' scientific attitude in terms of views toward modular distance learning and science teachers' performance as administrator and teacher, have a positive impact on the dependent variable, schools' operational performance. However, only the teachers' performances as administrator and teacher have a direct influence on schools' economic performance. This mean that when science teachers' views toward modular distance learning are positive, then it is true that school performs well operationally. In addition, when science teachers perform well as administrator and teacher, it is true that the school performs well economically and operationally.

Moreover, the higher the teachers' performance as an administrator, the better would be the schools' economic performance. This study recommends the following: (1) To sustain the positive attitude of science teachers in Maguindanao 2, school heads must encourage them to express issues or seek guidance at any time through open communication or discussion on a regular basis. (2) To sustain the performances of science teachers in Maguindanao 2, school heads together with the school's division need to conduct more webinars and trainings for all Science teachers. (3) School heads need to focus on assisting Science teachers' administrative tasks since it has direct influence on schools' economic performance. (4) Maguindanao 2 Division should be given a copy of the study's findings as a basis for future decisions about science teachers' scientific attitudes and performance. (5) For future research, it is recommended to correlate the Science teachers' attitude and performances in teaching Science during limited face to face classes.

References

Aktan, O., Toraman, Ç. & Orakci, Ş., 2020. Relationships between teachers' professional values, attitudes, and concerns about the profession in Turkey. Issues in Educational Research, 30(2), 397-419.

Anzaldo, G. D. 2021. Modular Distance Learning in the new normal education amidst Covid-19. International Journal of Scientific Advances, 2(3), 233-266.

Baumel H B & Berger J. J. 1965 An attempt to measure scientific attitude Science Education 49 (3) 267-269

Bernardo, J. 2020. Modular Learning most preferred parents: DepEd. ABS-CBN News.

Bondoc, K., Dalimeg, J., Batu, A., Ramos, M., Serrano, E.J., Smith, J.N., (2022). Make It or Break It: Exploring the Impact of COVID-19 Lockdown on the Quality of Social Relationships Among Emerging Adults. *Psychology and Education: A Multidisciplinary Journal*, *3*(1), 75-76

Bravo, A., Buenaflor, N., Baloloy, J., Guarte, L., Osinaga, A., Salartin, A., & Tus, J. (2021). Amidst the COVID-19 Pandemic: The Job Burnout and Job Satisfaction of Public School Teachers in the Philippines. *International Journal Of Advance Research And Innovative Ideas In Education*. DOI:10.6084/m9.figshare.14832399.v1.

Brezicha, K. F., & Fuller, E. J. 2019. Building teachers' trust in principals: Exploring the effects of the match between teacher and principal race/ethnicity and gender and feelings of trust. *Journal of School Leadership*, *29*(1), 25-53.

Brizuela, G.P., (2022). Accreditation and Equivalency Test Performances: A Comparative Study. *Psychology and Education: A Multidisciplinary Journal*, *1*(3), 199-207

Ching, M.A., (2022). Job Satisfaction and Performance of Non - Education Teacher Graduates in the Schools Division of Quezon. *Psychology and Education: A Multidisciplinary Journal, 3*(1), 81-82

Colomeischia, A.A., Colomeischia, T. 2014. Teachers' Attitudes towards Work in Relation with Emotional Intelligence and Self-Efficacy. Stefan cel Mare University, Suceava, 720223, Romania

Ekawati E. Y. 2017. A Model of Scientific Attitudes Assessment by Observation in Physics Learning Based Scientific Approach: Case Study of Dynamic Fluid Topic in High SChool. J. Phys.: Conf. Ser. 795 0120563

Espinosa, F. M. 2017. Financial Management Practices of School Heads: Teachers'perspectives. Skyline Business Journal, 13(1). INFOPLUS The Scholars' Corner.

Fayyoumi, A. 2018. The Overwhelming Administrative Tasks on Teachers: What Technology Can Offer?

Fernandez, E. 2021. 13K boxes of bond paper sent to BARMM schools. Philippines News Agency

Francisco, J., Cruz, J., Cruz, K., Resurreccion, L., Lopez, L., Torculas, A., Gumpal, M., Guillermo, N., Tus, J., (2022). The Job Burnout And Its Impact on the Employee's Performance Amidst the COVID-19 Pandemic. *Psychology and Education: A Multidisciplinary Journal, 2*(2), 155-166

Gardner P.L. 1975. Attitudes to science: A review Studies in Science Education 2 1 - 41Dachlan, U. 2014. Panduan Lengkap Structural Equation Modeling: Tingkat Dasar, Semarang: Lentera Ilmu. pp 18

Gonzales, C. 2020. DepEd: Guidelines for streamlined K to 12 curriculums now available online. Inquirer.net

Isman, A., & Dabaj, F. 2004. Roles of the students and teachers in distance education. In *Society for Information Technology & Teacher Education International Conference* (pp. 497-502). Association for the Advancement of Computing in Education (AACE).

Joseph, E. E., Orim, R. Ekonesi 2017. Attitude of Science Teachers towards Teaching in Calabar Metropolis. Department of Science Education Faculty of Education University of Calabar,

Lamas, A. (2015). School Performance. ISSN 2307-7999, Vol. 3, N° 1: pp. 313-386.

Manlangit, P., Paglumotan, A. M., & Sapera, S. C. 2020. Nanay, Handa Na Ba Kayong Maging Tagapagdaloy? Supercharging Filipino Parents is Key for Successful Modular Distance Learning. *FlipScience*.

Merryfield, M. 2012. Four strategies for teaching open-mindedness. Social Studies and the Young Learner, 25(2), 18-22.

Murugan, P. V. 2019. A Study on Scientific Attitude of Elementary Teacher Education Students. Psychol Behav Sci Int J. 2019; 11(1): 555805. DOI10.19080/PBSIJ.2019.11.555805

Paciente, J., (2022). Information and Communication Technology (ICT) Knowledge, Skills, And Attitude: Basis for DEPED Support System. *Psychology and Education: A Multidisciplinary Journal, 3*(1), 85-86

Pangunutan, F. 2021. Organizational Performance of the Private Secondary Schools in Cotabato City amidst Covid-19 Pandemic

Pe Dangle, Y. R. P., & Sumaoang, J. D. 2020, November. The implementation of modular distance learning in the Philippine secondary public schools. In 3rd International Conference on Advanced Research in Teaching and Education (Vol. 100, p. 108).

Quinones, M. T. 2020, July 3. DepEd clarifies blended, distance learning modalities for SY 2020- 2021. Philippine Information Agency.

Raja, V. (2016). Scientific Attitude among Secondary School Students.

Rayo, F., Pablo, J.A., Tuazon, R., Versoza, E., Pacut, R.M., Cruz, W.D., Mergenio, M., Pacano, S.M., Plamenco, P.M., Porras, E., Recaña, C.P., Teaño, J., (2022). Amidst the COVID-19 Pandemic: Teacher's Commitment and Its Influence on Job Performance. *Psychology and Education: A Multidisciplinary Journal, 2*(2), 73-81

Robosa, J., Paras, N., Perante, L., Alvez, T., & Tus, J. (2021). The Experiences and Challenges Faced of the Public School Teachers Amidst the COVID-19 Pandemic: A Phenomenological Study in the Philippines. *International Journal Of Advance Research And Innovative Ideas In Education*. 7(1). 10.6084/m9.figshare.14028833.v1.

Tarmidi, D. & Arsjah, R. 2019. Employee and Organizational Performance: Impact of Employee Internal and External Factors, Moderated by Online Application. Journal of Resources Development and Management. 57. 30-37. 10.7176/JRDM/57-04.

Tria, J. Z. 2020, June 3. The COVID-19 Pandemic through the Lens of Education in the Philippines: The New Normal. ResearchGate.

Turkkahraman, M. 2015. Education, Teaching and School as A Social Organization,Procedia - Social and Behavioral Sciences, Volume 186, pp 381-387, ISSN 1877-0428,

Ualesi, Y., & Ward, G. 2018. Teachers' Attitudes Toward Teaching Science in a New Zealand Intermediate School. Australian Journal of Teacher Education, 43(6).

Affiliations and Corresponding Information

Noraysa Kasan
Sarilikha National High School
Maguindanao-II Division
MBHTE BARMM, Philippines

Alyahza Kasan
University of Santo Tomas, Philippines

Nor Ayn Salindao
Sarilikha National High School
Maguindanao-II Division
MBHTE BARMM, Philippines

Haron Mohamad
MBHTE-BARMM Talitay National High School
Maguindanao-1 Division, Philippines