

Predictors of Quality Teaching of Elementary School Teachers: A Multiple Regression Analysis

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ABSTRACT

Quality teaching is influenced by varied dimensions. This predictive research extrapolates which predictors affect quality teaching. Employing stratified simple random sampling, 168 out of 290 elementary school teachers answered the validated and tried out survey questionnaire via an online platform. Findings reveal that role overload and career development opportunity significantly influence quality teaching. Class size, length of service, and personal commitment do not significantly influence quality teaching. The model generated is $\text{Quality Teaching} = 3.562 + 0.325 \times \text{Role Overload} + 0.245 \times \text{Career Development Opportunity}$. The management may support elementary school teachers to grab career development opportunity as these contribute to their quality teaching. Teachers who manifest high role overload may be prioritized to be given career development opportunity as a reward for their hard work.

Keywords: educational management, quality teaching, role overload, career development opportunity, multiple regression analysis, Davao del Norte, Philippines

INTRODUCTION

Quality teaching, which is described as effective instruction that promotes excellence and student learning outcomes, is affected by numerous predictors such as role overload, class size, length of service, career development opportunity, and personal commitment. Wakoli (2013) highlighted that teacher overload is a real problem in primary schools which brought negative impact on teacher performance. Hakanen (2006) also identified class size and workload as predictors of quality teaching. Blatchford and Lai (2012) pointed out that many countries like the USA, European countries, China, Japan, and many other developed countries are implementing the control of class sizes. Balakrishnamurthy and Shankar (2009) concurred that there is a relationship between years of service or level of experience and quality of teaching. The notion that length of service affects quality teaching is reinforced by the study of Pei and Guoli (2008). Moreover, career development opportunity is found to influence the quality teaching. Celik (2017) concluded that teachers have vital roles in students' achievement. In addition, it is vital to recognize that teachers' skills, field knowledge, and teaching abilities are decisive predictors in the development of students. Ball and Goodson (2008) concluded that events and experiences in the personal lives of teachers are known to intimately link to the performance of their professional roles. In the Philippines, Abarro (2018) found that local seminars attended is among the predictors that affect the performance of teachers. The same study, however, found that length of service and international/national/regional seminars attended do not affect the performance of teachers. Related literature on predictors of quality teaching in Davao Region has been wanting, more so with Davao del Norte. Efforts have been done to look for related literature on the topic, but none has been found. Nevertheless, based on observation as an elementary school teacher, quality teaching is indeed affected by varied reasons. It is in this context that this study was proposed to determine the predictors of quality teaching of elementary school teachers. Findings of this study can add to the body of knowledge and eventually may answer the scarcity of literature on the same topic. Hence, this quantitative research determines the predictors of quality teaching of elementary school teachers from the Tagum City Division., Davao del Norte, Philippines. To be specific, the study seeks to:

1. Describe the extent of manifestation of predictors of quality teaching among elementary school teachers in terms of:
 - Role Overload
 - Class Size
 - Length of Service
 - Career Development Opportunity
 - Personal Commitment
2. Describe the extent of quality teaching of elementary school teachers
3. Determine the relationship between predictors and quality teaching of elementary school teachers
4. Determine the factor that predicts quality teaching of elementary school teachers

This study has two hypotheses, as follows:

H_{01} : There is no significant relationship between the predictors and quality teaching among elementary school teachers.

H_{02} : There is no factor that predicts quality teaching among elementary school teachers.

THEORETICAL FRAMEWORK

This study is anchored on Systems Evaluation Theory (SET) which explains that before one can develop a strategy or mechanism to determine whether it is operating efficiently and effectively, there is a need to know how a particular system works or operates. SET starts with the teachers, each of whom differs with respect to characteristics that affect their ability to teach at the time they start experiencing stress due to many factors. The system in which they operate is evaluated for instance, class size, role, length of service, career development opportunity, and personal commitment.

Conceptual Framework

The conceptual framework adopted the understanding of the Systems Evaluation Theory (SET) with the underlying assumption that many predictors could affect the quality of teaching of the elementary teachers of Tagum City Division and therefore, there is a need to evaluate the system where the teachers are operating. The figure below presents how quality teaching has been affected by the identified predictors such such as role overload, class size, length of service, career development opportunity, and personal commitment (Figure 1).

Statement of the Problem

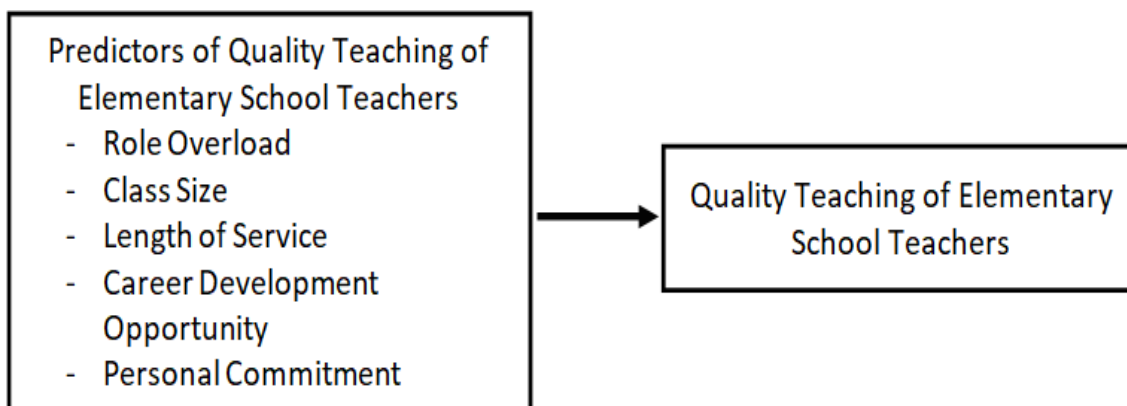


Figure 1. Conceptual framework of the study

RESEARCH DESIGN AND METHODS

The study employed a predictive research design. According to Gall et al. (2007) predictive research design is concerned with forecasting future events, behavior or social patterns based on the assessment of variables at one point in time to predict a phenomenon assessed at a later point in time. This specific strategy is appropriate since this study sought to determine the predictors that significantly affect the quality teaching of elementary school teachers.

This study was conducted in South District, Tagum City Division of the Department of Education in 2021. This District has 12 elementary schools.

Stratified simple random sampling was used in selecting the respondents. Parsons (2017) described stratified sampling as a probability sampling method used in sample surveys. The target population is divided into distinct homogeneous groups or strata and a simple random sample is selected from each stratum. Lavraskas (2008) described random sampling as a variety of selection techniques in which sample members are selected by chance, but with a known probability of selection. Using Yamane formula, 168 out of 290 teachers were selected as respondents of the study. These teachers use learning media in their teaching such as video, television, diagrams, print materials, computer programs, and technology.

A researcher-made, validated, and tried-out survey questionnaire was employed in this study. The questionnaire has three parts namely: Section A, on the socio-demographic information; Section B, on the extent of manifestation of predictors that affect quality teaching; and Section C, on the extent of quality teaching of elementary school teachers. The survey questionnaire used the 10-point Likert scale as it offers a more variance than a smaller Likert scale, a higher degree of measurement precision, a better opportunity to detect changes, and more power to explain a point of view. Survey using online platform was done in this study. Orientation was given to the respondents on the objectives of the study, items to be answered, and process of answering the survey.

All statistical analyses of the quantitative results were computed and analyzed using Statistical Package for the Social Science (SPSS) version 2.0 (Landau and Everitt, 2004). The mean, standard deviation, Pearson's r , and multilinear regression were the statistical tools utilized in this research.

Brief orientation, free prior and informed consent, voluntary participation, anonymity, and choice of words were observed in this study.

RESULTS

Extent of Manifestation of Predictors of Quality Teaching of Elementary School Teachers

The extent of manifestation of predictors ($x=7.27$) that influence quality teaching of elementary school teachers are perceived as high which means to have a very satisfactory manifestation among elementary school teachers (Table 1). Role overload ($x=8.33$) and length of service ($x=8.22$) have a very high level which are perceived to have an excellent manifestation. The other predictors are perceived to have very satisfactory and satisfactory level of manifestation.

Table 1. Extent of manifestation of predictors of quality teaching of elementary school teachers

Factors	Mean	S.D.	Description
Role Overload	8.33	2.08	Very High
Class Size	6.95	2.13	High
Length of Service	8.22	1.50	Very High
Career Development Opportunity	6.85	2.34	High
Personal Commitment	5.69	2.67	Moderate
Grand Mean	7.27	1.56	High

Extent of Quality Teaching of Elementary School Teachers

Attitude, teaching, delivery, assessment, and follow-up as part of extent of teaching quality of elementary school teachers have a grand mean of 8.73 (Table 2). This is equivalent to very high description which means that attitude, teaching, delivery, assessment, and follow-up are perceived to have an excellent manifestation among elementary school teachers.

Table 2. Extent of quality teaching of elementary school teachers

Quality Teaching	Mean	S.D.	Description
Attitude	8.78	1.70	Very High
Teaching	8.80	1.88	Very High
Delivery	8.75	1.88	Very High
Assessment	8.57	1.98	Very High
Follow-Up	8.73	1.23	Very High
Grad Mean	8.73	1.73	Very High

Significant Relationship Between Predictors and Quality Teaching of Elementary School Teachers

It is revealed in table 3 the results of the test of relationship between the predictors and quality of teaching among elementary school teachers. The findings disclosed that the relationship got an r-value of .655 and p-value of .000. This means that the the predictors and the quality of teaching got a positive, strong, and significant relationship. This also suggests the rejection of the null hypothesis of the study.

Table 3. Relationship between predictor variables and quality teaching

	Quality of Teaching		
	r-value	p-value	Decision
Factors (Predictors of DV)	.655**	.000	Reject Null Hypothesis

Predictors of Quality Teaching

The over-all identified predictors have a significant strong positive correlation (r-value=0.702; p<0.05) with quality teaching (Table 4). Moreover, these predictors have significant influence on quality teaching as reflected on the regression model which produced $R^2 = .493$, $F= 31.471$, $p<0.05$. It indicates that only 49.30% of the total variation of quality teaching can be explained by the linear functions of the identified factors. In other words, 50.70% of the entire variation of quality teaching is not accounted by the variation of the identified variables. Thus, this suggests that there might be some other predictors which influence teaching quality. Furthermore, the statistics above indicate that the null hypothesis which states that there is no factor significantly predicts quality teaching is rejected. Evidently, only role overload and career development opportunity significantly influence (p-value<0.05) quality teaching. The rest of the indicators such as class size, length of service, and personal commitment do not significantly (p-value>0.05) influence quality teaching.

Table 4. Predictors of quality teaching

Variable	Multiple Regression Weight		STD ERROR	t-value	p-value
	B	B			
Constant	3.562		.571	6.238	.000
Role Overload	.325	.392	.064	5.090	.000
Class Size	.114	.141	.064	1.789	.076

Length of Service	.007	.006	.073	.093	.926
Career Development Opportunity	.245	.331	.055	4.416	.000
Personal Commitment	-.012		.047	-.243	.808

Multiple R = .702 F_{value} = 31.471

R² = .493 p-value < 0.05

Model that Predicts Quality of Teaching

Below is the formula for predicting the dependent variable, which is the quality of teaching of elementary teachers. The formula for Multiple Linear Regression:

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Model for Quality of Teaching (Only factors with significant predictions are included):

$$\text{Quality of Teaching} = 3.562 + .325 (\text{Role Overload}) + .245 (\text{Career Development Opportunity})$$

Thus, the following working model is generated based on the statistical results: Quality Teaching = 3.562 + 0.325*Role Overload + 0.245*Career Development Opportunity. The predictive model for quality teaching above indicates that for every 1 unit increase of role overload and 1 unit increase of career development opportunity, there corresponds an increase of 0.325 and 0.245, respectively to obtain a predictive value of quality teaching. It indicates further that the more increase of role overload and career development opportunity, the greater the predictive value of quality teaching will be.

DISCUSSION

Extent of Manifestation of Predictors of Quality Teaching of Elementary School Teachers

The elementary school teachers manifested very high in role overload and length of service. This means that elementary schools are carrying loads more than the expected loads and they have been in service for many years and have enough experience. They manifested high in class size and career development opportunity and moderate in personal commitment. This implies that teacher-student ratio is high since teachers are few. Personal commitment in moderate level means that teachers have fairly time with the family, fairly enjoys day off and weekends, and fairly practice work-balance life.

Role overload is a prevalent issue around the world. This role overload is termed as quantitative overload by Duke, Haas, Wieck and Yarbough (2016) wherein the teachers are involved in performing several tasks given the limited resources. Sudhakar (2017) likewise disclosed that aside from teaching, teachers are given other extra workloads as part of their responsibilities apart from classroom instructions. In this context, Ding(2000) found out that there are 15,000 reported teachers in Malaysia who quit the teaching profession due to excessive workload. Gitomer (2006) revealed that Filipino teachers seek an opportunity outside the country, if not opt for early retirement due to the feeling of excessive monitoring and demands for outputs to be performed by the teachers. Kumar and Govindarajo (2014) confirmed that role overload affects the capabilities of the teachers to perform the tasks. Al-Ghamdi (2017) revealed that stressed teachers and academicians can have a huge effect on a school due to absenteeism, fatigue, tardiness, and turnover.

Studies show more of negative impacts on quality teaching than of a challenge. Teachers, aside from requiring them to give students many learning tasks and assessments, are also given administrative paper works, and are constantly monitored. These multiple roles that they do simultaneously and the lack of

resources to perform lead to role strain. This scenario calls for school heads to revisit the job description of teachers and to distribute proportionally the shared responsibilities and functions outside teaching responsibilities of teachers for them to perform their main task which is to deliver instructional tasks. On the other hand, doing multi-tasks aside from teaching is an opportunity for teachers to be familiar with administrative work that will prepare them for leadership or management role in the future.

Elementary school teachers are facing big class sizes that affect quality teaching. Ashimwe (2010) posited that learners are more likely to learn better when given personal attention, especially the slow learners or late bloomers. Uson (2006) found out that the declining teaching quality due to large class size has been a concern in developed and developing countries. Stronge (2002) stated that regardless of the teacher's competence, the teaching and learning experience is adversely affected when there are too many students in a class. In this concern, policymakers have a vital role to play in looking into this problem in class size, especially on budget appropriation.

Many studies show that more extended length of service has a positive impact on quality teaching; this brings higher feelings of self-efficacy, leading to better performance. In this undertaking, length of service is factor that influences quality teaching of elementary school teachers as it has a very high descriptive equivalent which means such is perceived to have an excellent manifestation among elementary school teachers. As supported by Rice (2003), the length of service has a positive effect on quality teaching. In addition, the number of years of teaching experience which constitutes the length of service of a teacher is not just a factor that contributes to the quality of teaching. It is also an indicator of high-quality teachers. Lutonsky (2009) found out that teachers with a higher length of service and more hours of professional development have higher feelings of self-efficacy regarding computer use than those with fewer years of experience. According to Madrigal and Roberto (2019), security of tenure, which is an indicator of the length of service, is one probable factor that affects teaching quality.

Length of service is said to be a measure of quality teaching. It has been proven that longer length of service expects faculty to have achieved the highest quality teaching expected of them. Their long stay in the institution they belong has equipped them to give their best to produce better teaching and learning outcomes. On the other hand, and for some reasons, there are instances when teachers perform less. They turn to be demotivated, dissatisfied and ineffective, accustomed to retaining their old ways and pleased with increased leisure time and reduced research and instruction time. Educational managers/leaders have vital role to play in keeping and pushing teachers to uphold quality teaching by employing varied intrinsic and extrinsic reward system.

Career development opportunity as factor that influences quality teaching of elementary school teachers has a high descriptive equivalent which means that career development opportunity factor is perceived to have a very good manifestation among elementary school teachers except for one indicator which is scholarship grant which has a moderate descriptive equivalent. Arnon and Reichel (2007) revealed that students perceive personal qualities and professional knowledge as the most significant qualities needed to be ideal teachers. Barnes (2006) highlighted that developing teacher professionally is essential to meet the global demands from the graduates. Unfortunately, relating to the scenario of the locale of the study, few opportunities were given to the teacher with regards to career advancement and opportunities. Mashau et al. (2016) disclosed that only few educational institutions provided opportunities for teachers to grow personally and professionally in South Africa. In addition, World Bank (2014) stressed out that professional development opportunities currently offered to teachers frequently fail to meet even minimum levels of quality and fall short of what teachers want and need. This problem is also prevalent in the Philippines. To make a difference in the students' achievement, teachers should constantly upgrade their competencies. Gore et al. (2017) found that career development opportunity has a positive impact on quality teaching. Kennedy (2015) also noted the positive effect of career development opportunity for the teachers as an important predictor which makes a positive difference in the enhancement in the quality of teaching. Accordingly, career development opportunity increases satisfaction in their teaching profession which aids

in the improvement in their quality teaching and learning of their students. Schools may continue their best efforts in this regard and find ways to mobilize resources for scholarship funds. They can inspire their teachers to apply for available scholarship funds from external bodies. Pop (2008) examined the effects of career development opportunity on the teachers' quality of teaching. As revealed, there is a significant positive relationship between the appraisal rating of the teachers on the received career opportunity and the motivational force which leads them to provide quality teaching.

Personal commitment is in moderate level among teachers. Day, Kington, Stobart, and Sammons (2006) opined that in teacher education, knowing how to balance personal commitment and work results to high-quality output. Kersaint, Lewis, Potter, and Meisels (2007) concluded that balancing personal commitment and the job involves the ability to have enough time to spend with the family, to constantly practice work-life balance, and to leave work at school. Chance (2015) revealed that the balance between the teachers' amount of time spent doing the job and the amount of time spent with the family and doing things they enjoy is difficult to achieve. Kersaint, Lewis, Potter, and Meisels (2007) pointed that the multifaceted roles of teachers intervened with their personal life create imbalance which affects their efficiency to perform their job. This is in support to Lewis, Gambles, and Rapoport (2007) which stated that the strain due to the disagreement between home and work domains has increased among employees, especially in academe, and has negatively affected the quality of their service. As suggested, educational institutions must adopt human resource policies and strategies that could accommodate teachers' work and life needs simultaneously to lessen the work and family role strain and increase productivity and quality teaching.

Extent of Quality Teaching of Elementary School Teachers

Attitude, teaching, delivery, assessment, and follow-up as extent of teaching quality of elementary school teachers got a very high descriptive equivalent which means that attitude, teaching, delivery, assessment, and follow-up are perceived to have an excellent manifestation among elementary school teachers. Barber and Mourshed (2007) revealed that the main driver of the diversity in students' learning at school is the quality of the teachers. Hattie (2009) pointed out that the quality of teachers still has a larger impact on students' learning. Furthermore, Hepburn and Brown (2001) emphasized that the excessive workload given to the teachers is one of the many predictors compromising the quality of teaching. The same situation is experienced in accordance to the result of the undertaking. These aggravate the country's existing challenging educational situation, as they may lead to low morale among the already overworked. In the Philippines, quality teaching is being considered in today's education system because of the No Child Left behind Act (NCLB) of 2010. NCLB pushes the education department to improve the quality of teaching by requiring schools to hire qualified teachers to teach subjects in line with their specialization. This action is intending to address school inequities as experienced since many teachers are teaching outside their fields of expertise. The findings of this study on the high level of manifestation of quality teaching of elementary teachers despite the unpleasant circumstances that they face is something to be proud of. The school must be happy about this commendable performance of the teachers. The passion in them must be sustained by giving them intrinsic reward and extrinsic rewards to balance work and life thereby bringing about joy in what they are doing. Moreover, it must be noted that as revealed in certain studies, high level of quality teaching is tantamount to high level of student learning outcomes and high school effectiveness or performance.

Predictors of Quality Teaching of Elementary School Teachers

Role overload and career development opportunity are the predictors that significantly influence quality teaching. Though several studies directly attribute role overload to affect quality teaching negatively, Taris et al. (2001) emphasized that the stress as felt by the teachers in their role overload can be positive when it inspires and encourages them to strive better. As supported in the study of Malone (2002), though role overload occurs when more is expected than the individual can accomplish, the organizational stress it may bring can turn into a motivation to improve the quality teaching. In addition, Cochiera et al. (2009) pointed out that for as long as affirmative social support at work is encouraged, role overload has positive affectivity

in providing quality teaching. Moreover, Gore et al. (2017) found that career development opportunity has a positive impact on quality teaching. Kennedy (2015) also noted the positive effect of career development opportunity for the teachers as an important predictor which makes a positive difference in the enhancement in the quality of teaching. Furthermore, Pop (2008) examined the effects of career development opportunity on the teachers' quality of teaching. As revealed, there is a significant positive relationship between the appraisal rating of the teachers on the received career opportunities and the motivational force which leads them to provide quality teaching. The findings of the study confirmed that role overload and career development opportunity are two-fold predictors that affect quality teaching of elementary school teachers. It is surprising and inspiring to note that teachers in this study still perform very well despite role overload. They do not mind the pressures in work to the point of sacrificing their personal commitment. They are worthy to be emulated and recognized. One suggestion is to continue supporting them with career development efforts. Due to limited internal funds, they can be encouraged or helped to look for scholarship grants locally, nationally, or internationally. In giving scholarship grants, those teachers who have role overload may be prioritized as a reward for their hard work. Moreover, budget for internally funded scholarship grants may be integrated in the budget proposal to assist teachers pursue career development programs. Externally funded scholarship grants may be explored by the human resource officer and disseminated to teachers as external funds may reduce pressure on operating budget. It is good to explore studies on the impact of quality teaching on students' learning outcomes and school effectiveness or performance outcomes.

CONCLUSION

This predictive research study shows that elementary school teachers have very high extent of manifestation of role overload and length of service; high extent of manifestation of class size, and career development opportunity; and moderate extent of manifestation of personal commitment. Teachers have a very high level of quality teaching. Findings further reveal that role overload and career development opportunity significantly influence quality teaching. Class size, length of service, and personal commitment do not significantly influence quality teaching. The model generated based on the statistical results is $\text{Quality Teaching} = 3.562 + 0.325 \times \text{Role Overload} + 0.245 \times \text{Career Development Opportunity}$. It is suggested that management may investigate the role overload of teachers. Though this study has shown that it has positive effect on quality teaching, future research may still be conducted on role overload to show the underlying circumstances on the positive effect of it on quality teaching. Further study to correlate quality teaching to quality learning may also be investigated.

This further study may include learning activities, social and cultural background conditions of students' learning, and learning media used. The management may likewise support teachers to take any career development opportunities as these contribute to their quality teaching.

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