

Predictors of teaching effectiveness among secondary school teachers of Nagaland

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Abstract

The present study explored the predictors of teaching effectiveness among secondary school teachers of Dimapur district of Nagaland. Teaching effectiveness constitutes the characteristics, competencies, and behaviors of a teacher that enable his/her students to attain desired learning outcomes. The Teacher Effectiveness Rating Scale (Kulsum, 2001) was used to collect data. It was found that most (71%) teachers are having average level of teaching effectiveness. Further results revealed that out of five dimensions of teaching effectiveness, teacher characteristic is the most important dimension for the teaching effectiveness and age of teacher and teaching experience has no impact on his/her teaching effectiveness.

Key words: Teaching Effectiveness, Teacher characteristics

Introduction

India, in educational context has been a developed country long ago when education has been always a part of Indian culture and society. The Teacher, called as Guru, was the most important part of education as s/he facilitates the holistic development of their learners. The teachers were worshiped before God, because of their conduct, their teachings, which transformed human beings, education & the society at large. Lord Macaulay has acknowledged this greatness of spiritual and cultural heritage, and ancient education system in his address to British Parliament on 2nd Feb, 1835. In contemporary world, the Finnish miracle, the rise of Finnish education system, is also the result of education as a part of Finnish culture and society. The researches show that the element responsible for Finland's success above all others is excellent teachers (Sahlberg, 2010). A teacher creates a remarkable impact on the lives of the students and thus on the whole educational process. The teachers who set goals for themselves and achieve them effectively are called as effective teachers. Such effective teachers help others in attainment of their goal & also achieve goals set for them by their organizations (Anderson, 2004). They also encourage their students to formulate reasonable objectives for themselves and facilitate them in their achievement. Besides these, the effective teachers prepare the students for the life outside school. They guide them in attaining the broader objectives of life such as development of problem solving ability, critical thinking skills collaborative skills and help them to develop in to effective citizens (Hunt, 2009). They prepare their students for the world outside the four walls of school. The same has been highlighted in the vision and mission of NCF (2005), NCFTE (2010) and constructivist viewpoint which confirm that a teacher as a facilitator of learning, construct the other components of educational process for optimal learning in students. Teacher effectiveness can be seen in knowledge, attitudes, and performance as rightly said by Hunt (2009) that it is generally the characteristics, competencies, and behaviors of teachers that enable their students to attain the desired learning outcomes. Teacher effectiveness is important because it brings effectiveness in the functioning of whole institution. The teacher education institutions

has important role to play in preparing the reflective teachers. NCF (2005) emphasized that teacher education institutions should keep an eye on the dynamic society and its emerging demands and correspondingly prepare teachers the contemporary school system. The need is to prepare facilitators, managers, researchers and counselors, who can create better learning situations for each learner and help discover their abilities, skills and all over potentials and develop them to the fullest. There are various factors which affect the teaching effectiveness of teachers. The previous researchers concluded that factors like low salary, teaching experience, pre-service training procedures, subject knowledge, problem solving ability, lack of resources, lack of proper planning in teaching, job satisfaction, ability in dealing the students inside the classroom affects teaching effectiveness. Tyagi (2013) in her descriptive research on teaching effectiveness found that urban teachers have high level of teaching effectiveness than rural teachers. The experienced teachers (above 3 years) are having high level of teaching effectiveness than teachers having less experience (less than 3 years), unmarried teacher are more effective than married teachers, arts & commerce teachers showed high teaching effectiveness than science teachers, highly qualified teachers (PG & above) have high level of teaching effectiveness than simple graduate teachers. Whereas, Degi & Zangmu (2017) in another study found that female secondary school teachers are more effective than male secondary school teachers in Tawang district, Arunachal Pradesh. Both trained & untrained teachers showed high teaching effectiveness and no significant differences were found between untrained male & trained male or untrained female of trained females. Bisht (2014) found that secondary school teachers do not differ in their teaching effectiveness with respect to type of school and gender. Bashir & Kumar (2014) in their study on teaching effectiveness of secondary school teachers of Kashmir division of Jammu and Kashmir in relation to their work motivation found that there is no relationship between teaching effectiveness and work motivation. The male and female teachers do not show significant difference in their teaching effectiveness but shows significant difference in their work motivation. Passi & Lalitha (1994) identified 14 teaching competencies whereas Kulsum (2001) identified 5 dimensions of teaching effectiveness. These dimensions in order of their preference are teacher characteristics, classroom management, preparation for teaching & planning, interpersonal relations and knowledge of subject matter. In this scale technological competence was not considered as important competency. Despite of so much emphasis on effective teaching standards, professional development of teachers, strict rule & regulations of recruitment, the untrained teachers are teaching higher classes, negligible salary being paid to teachers and teacher absenteeism and indiscipline in classes are some of the observed facts which resulted in lower academic achievements in students. The main focus of the study was to explore the predictors of teaching effectiveness so that schools can recruit the effective teachers in areas like Nagaland where there is the shortage of well qualified & trained teachers. The objectives of the study are;

1. To study the demographics of senior secondary school teachers with respect to their teaching effectiveness.
2. To find out the impact of dimensions of teaching effectiveness on overall teaching effectiveness of teachers.
3. To explore the impact of age and experience in teaching on teaching effectiveness of secondary school teachers.

Research design

The study is descriptive in nature. The descriptive survey method has been used to explore the various predictors of teaching effectiveness among secondary school teachers of Dimapur district of Nagaland. The sample consisted of 200 secondary school teachers from 20 secondary schools. The researchers have given special care to select equal number of male and female secondary school teachers. The secondary schools and the secondary school teachers were selected using random sampling. Teacher effectiveness rating scales constructed by Dr. (Mrs) Umme Kulsum (2000) has been used to collect data. Further prediction was done on the basis of teacher effectiveness dimension, age, experience, gender and type of school. Regression analysis was computed to find out the predictors of teaching effectiveness.

Results & Discussion

Demographics of Senior Secondary School Teachers

The purpose of demographic analysis was to find out the levels of teaching effectiveness with respect to gender, type of school, location of school, teaching experience, qualification and age. The demographic analysis is given below in table 1.

Table 1: The demographic analysis

		Low level of teaching effectiveness	Average level of teaching effectiveness	High level of teaching effectiveness
Gender	Male (100)	15%	73%	12%
	Female (100)	17%	69%	14%
Type of School	Government (100)	11%	83%	6
	Private (100)	21%	59%	20%
Location of school	Urban (160)	30(18.75%)	106(66.25%)	24(15%)
	Rural (40)	2(5%)	36(90%)	2(5%)
Teaching experience	1-10 years (149)	26(17.44%)	103(69.12%)	20(13.42%)
	11- 20 years (36)	4(11.11%)	29(80.55%)	3(8.33%)
	21 years & above (15)	2(13.33%)	10(66.67%)	3(20%)
Qualification	Undergraduates (5)	1(20%)	3(60%)	1(20%)
	Graduates (80)	18(22.5%)	53(66.25%)	9(11.25%)
	Graduates with B.Ed. (22)	2(9.09%)	17(77.27%)	3(13.64%)
	Postgraduates (65)	9(13.84%)	47(72.30%)	9(13.85%)
	Postgraduates with B.Ed. (28)	2(7.14%)	22(78.57%)	4(14.28%)
Age	20- 35 years (119)	23(19.33)	79(66.38%)	17(14.29%)
	36-50 years (75)	7(9.33)	59(78.67%)	9(12%)
	51 years & above (6)	2(33.33)	4(66.67%)	0%

	Overall (200)	32 (16%)	142 (71%)	26 (13%)
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The average level of teaching effectiveness was found in 71% of teachers. The private school teachers are high in their teaching effectiveness as compared to government school teacher. With respect to location, more urban teachers are having high teaching effectiveness than rural teachers. Further it is concluded that, experienced teachers are having high level of teaching effectiveness than teachers having less experience. With the increase in qualification the level, the teaching effectiveness also increases. The teachers having B.Ed. degree performed better in teaching than those not having B.Ed. degree. So, training has an impact on teaching effectiveness. Surprisingly, the teachers younger in age showed high teaching effectiveness. The results analysis of teaching effectiveness of teachers with respect to demographics supports the results found by Tyagi (2012) in Gaziabad district of Uttar Pradesh.

Impact of dimensions of teaching effectiveness on overall teaching effectiveness of teachers

The five dimensions of teaching effectiveness are preparation for teaching & planning, classroom management, knowledge of subject matter mastery and delivery, teacher characteristics and interpersonal relations. The multiple regression analysis has been computed to find out the impact of dimensions of teaching effectiveness on overall teaching effectiveness of teachers. The results have been shown in tables 2, 3, 4 & 5.

Table: 2 Association of different dimensions of teaching effectiveness with overall teaching effectiveness

	Dimensions of teaching effectiveness	N	Df	r	p-value	Remarks
Teaching effectiveness Vs	Preparation for teaching & Planning	200	198	0.867	0.000	Significant
	Classroom Management	200	198	.887	0.000	Significant
	Knowledge of subject matter mastery and delivery	200	198	.849	0.000	Significant
	Teacher Characteristics	200	198	.897	0.000	Significant
	Interpersonal relations	200	198	.874	0.000	Significant

From table 2 it is clear that all the five dimensions have strong association with teaching effectiveness. From p-values, we infer that there exists significant relationship between independent variables and dependent variable. So, association is there, therefore regression can be computed to see the cause and effect type of relationship.

Table 3: Summary of model fit

R	R Square
.926	.858

The table 3 shows that the coefficient of correlation (i.e. R) between the variables has a value of .926 (92.6%) whereas the coefficient of determination is .858 (85.8%). It shows that 85.8% variation in the teaching effectiveness has been explained by the five dimensions taken together.

Table 4: Summary of One-Way ANOVA

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between	633673.179	5	126734.636	235.141	.000
Within	104560.821	194	538.973		
Total	738234.000	199			

From the table 4 it has been observed that the p-value is 0.000 which is less than 0.05 and the F-test is significant. Thus the null hypothesis that the model explains zero variance in the teaching effectiveness is not accepted. Hence, the model explains significant variance in teaching effectiveness is due to five different dimensions.

Table 5: Coefficients associated with five dimensions of teaching effectiveness

	Unstandardized Coefficients	t' value	p-value	Remarks
(Constant)	7.932	.611	.542	
Preparation for teaching & Planning (X)	.705	1.897	.059	Not significant
Classroom Management (Y)	1.064	3.398	.001	Significant
Knowledge of subject matter mastery and delivery (Z)	.900	1.725	.086	Not significant
Teacher Characteristics (U)	1.087	3.986	.000	Significant
Interpersonal relations (V)	1.029	2.890	.004	Significant

From the table 5 it is clear that, Planning for teaching is positively related with teaching effectiveness as evident from the positive value of its coefficient (.705) i.e. if the planning for teaching increases by one unit, teaching effectiveness will increase by .705 units, while keeping other predictors constant. But it is also evident from table that the impact of planning for teaching upon teaching effectiveness is insignificant (p-value = .059)

Classroom management is also positively related with teaching effectiveness as evident from the positive value of its coefficient (1.064) i.e. if the classroom management increases by one unit, teaching effectiveness will increase by 1.064 units, while keeping other predictors constant. The classroom management has significant impact upon teaching effectiveness (p-value = .001).

Further table shows that if the Subject matter mastery and delivery increases by one unit, teaching effectiveness will increase by .900 units, while keeping other predictors constant. But it

is also evident from table that the impact of subject matter mastery and delivery upon teaching effectiveness is insignificant (p-value = .086)

The dimension, teacher characteristics is positively related with teaching effectiveness as evident from the positive value of its coefficient (1.087) i.e. if the teacher characteristics increases by one unit, teaching effectiveness will increase by 1.087 units, while keeping other predictors constant. It is also evident from table that the impact of teacher characteristics upon teaching effectiveness is significant (p-value = .000)

The factor, interpersonal relationships, is also positively related with teaching effectiveness as evident from the positive value of its coefficient (1.029) i.e. if the interpersonal relationships increases by one unit, teaching effectiveness will increase by 1.029 units, while keeping other predictors constant. It is also evident from table that, interpersonal relationships has significant impact upon teaching effectiveness (p-value = .004).

Hence, it can be concluded that in case of all the 200 secondary schools teachers, the most contributing dimension is teacher characteristics which is followed by classroom management and interpersonal relationships.

The Regression Equation

On the basis of the table 3.6, the Regression Equation is

$$\text{Teaching effectiveness} = 7.932 + 0.705X + 1.064Y + 0.9Z + 1.087U + 1.029V$$

Impact of age and experience on teaching effectiveness

As discussed in demography, the sample has been divided in to three different categories of age and three different categories of teaching experience. To see the impact of age and experience on teaching effectiveness, multiple regression analysis has been computed.

Table: 6 Association of age and teaching experience of secondary school teachers with overall teaching effectiveness

Variable	N	df	R	p-value	Remarks
Teaching effectiveness Vs. Age	200	198	-.08	0.108	Not Significant
Teaching effectiveness Vs. Teaching experience	200	198	.002	0.487	Not significant

From table 6 it is clear that the teaching effectiveness has no significant association with age of teachers and years of teaching experience. Therefore it is not feasible to compute regression equation to study the impact of age of teachers and years of teaching experience on teaching effectiveness.

Conclusion

The average level of teaching effectiveness was found in 71% of teachers. The private school teachers are high in their teaching effectiveness as compared to government school teacher. With respect to location, more urban teachers are having high teaching effectiveness than rural teachers. Further it is concluded that, teachers with more teaching experience are having high

level of teaching effectiveness than teachers having less experience. With the increase in qualification the level, the teaching effectiveness also increases. The teachers having B.Ed. degree performed better in teaching than those not having B.Ed. degree. So, training has an impact on teaching effectiveness. Surprisingly, the teachers younger in age showed high teaching effectiveness. The most contributing dimension for teaching effectiveness in senior secondary school teachers of Nagaland is 'teacher characteristics' which is followed by classroom management and interpersonal relationships. The teaching effectiveness has no significant association with age of teachers and years of teaching experience. Therefore, age of teachers and years of teaching experience do not influence the teaching effectiveness of teachers.

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