DOES THE EDUCATIONAL MONITORING AUTHORITY ENHANCE THE PERFORMANCE OF PUBLIC SECTOR SCHOOLS: A CASE STUDY OF KHYBER PAKHTUNKHWA, PAKISTAN

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ABSTRACT
It is suggested in Education policy 2009 of Pakistan that an educational monitoring and inspection system should introduced in provincial and district level to make sure and to enhance the quality of education at the institutions. For this purpose the government of Khyber Pakhtunkhwa introduced a new educational monitoring authority (EMA). The monitoring authority is unique and it differs in its organization and mechanism. The purpose of this research is to find out the impact of educational monitoring authority on the quality of education in public sector schools. The data is collected through multi stage cluster sampling technique from five divisions randomly by using Logistic regression models and data was analyzed with the help of STATA Software. Majority of the findings are significant statistically, like, staff professionalism and attitude of education monitoring staff has a significant impact on dependent variables, result of students, regularity and absenteeism of teaching and non-teaching staff as well as dropout rate reduction. In addition to this, recruitment of teacher by national testing service has positive significant impact on student results, while students belonging to Kohat division have significant reduction in dropout rate.

Due to this, it is suggested that education monitoring authority has to be implemented properly.

KEYWORDS
Educational Authority, Public Sector Schools, Khyber Pakhtunkhwa Pakistan

INTRODUCTION

In Education policy 2009 of Pakistan it is suggested that provincial and district government would introduce monitoring and inspection system to enhance the quality of education. To this end a new educational monitoring authority (EMA) was introduced by the provincial government to monitor the quality of education in all the public sector schools. The Education monitoring authority checks teacher absenteeism and regularity, basic facilities of school and drops out rates of the students. The main focus of the education authority is to monitor teaching and non-teaching staff absenteeism and regularity. Because teachers' regularity plays an important role to enhance the quality of education. In the 18th century first of all school monitoring and inspection initiated in France (De Grauwe 2007).

Soon after, this idea extended to other European counties (Saucier, McKim et al. 2014). Enhancing the value of schools and fostering student success is a top priority of all nations, specifically those that are emerging (Dadi,2013).Moreover, to improve the quality of education inschools is the primary objective of most inspectors(Altrichter, Ehren et al.2013). According to the Dutch Supervision act 2002,supervision can make better the quality of education given in schools.

LITERATURE REVIEW

The theoretical background of this research study is based on the Dutch Educational School Supervision Act. The background of Dutch supervision of school monitoring and their performance consist of teaching-learning practice, academic successes, and the school administrative situations(Hu, Van Veen et al. 2016). For example, in England, inspection of school emphases the importance of education, educational standards, financial management income and the overall development of schools.

Many researchers conducted research on monitoring and inspection and believe that school monitoring and inspection improve the quality of education, like the students results, teaching learning process(Blase and Blase 1999);(Musaazi 1985); (Sergiovanni and Starratt 2011). Some studies related to school inspection produced variations to the performance of schools(Wolf and Janssens 2007). In addition to this, other research studies concerned with school monitoring and improvements are frequently done in Turkey, England, Wales and in some African countries. In these research studies the monitoring staffs focuses on faults which are occurring in the

schools. They conduct several time inspection visits in schools, but the inspection visit has no such effect on both the teaching and learning processes (Plowright 2007); (Matete 2009); (Ehren and Visscher 2006).

In national level many research studies related to the impact of monitoring and inspection and their significance on the performance of schools conducted by different researcher (Assad and Mujahid ,2023), (Assad and Tahir,2023),(Ali and Assad,2020),(Allen and Burgess 2012), (Kamal, Mathavan et al. 2018) (Ali and Rauf 2019). The findings in majority of these studies tell us that school inspection has no lasting impacts on the students result and teaching learning process. But the education monitoring authority (EMA) only improved teaching and non-teaching staff absenteeism and regularity.

Data presented in the paper shows the impact of educational monitoring authority on the regularity of teachers and effectiveness of teaching learning process, selection of staff through national testing services (NTS) and other valid testing agency like education testing and evaluation agency (ETEA), teacher satisfaction with the monitoring system, teachers' professionalism, attitude of monitoring staff and dropout rate of students as well. The new educational monitoring authority of Pakistan has a number of educational policies and school reform. It is no wonder that there impact on academic achievement is found to be very insignificant. At last but not least this piece of research study would shed light on the performance of schools.

RESEARCH OBJECTIVE

1. Identify the impact of educational monitoring authority on the performance of public sector school in Khyber Pakhtunkhwa Pakistan.

RESEARCH HYPOTHESIS

1. There is no significant impact of educational monitoring authority on the performance of public sector school in Khyber Pakhtunkhwa Pakistan.

RESEARCH METHODOLOGY

Population and Sample

All the 100 (50 boys and 50 girls) secondary schools were the population of the study. Data was collected randomly from 500 participants (250 male & 250 female) through multistage cluster sampling techniques. From each school five research participants were selected. In which one (1) head teacher, two (2) teachers and two (2) students were selected as a sample.

Instrument

The nature of the research is quantitative. So, researchers used closed ended five-point

Lickert scale (agree, strongly agree, disagree, strongly disagree and undecided) questionnaires to collect data from the selected participants in the public sector schools.

Data collection procedure

Before collection of data first of all researchers had provided a permission letter to the applicants, the letter explained the confidentiality and the purpose of the data collection. After that the research tools were distributed and guided to the research respondents. Different return rates were received by the researcher from already distributed research tools. 100% return rate from male respondents and 90% return rate from female participants were received by the researcher. In Table no 1 the definitions and explanations of the variables are given.

DATA ANALYSIS

To assess the impact of educational monitoring authorities on school performance, logistic regression models were employed, and the gathered results were analyzed using STATA software. The hidden outcome variable is indicated by $Outcome_i^*$ (outcome variables) range$-\infty$ to $+\infty$ estimate independent explanatory variables:

$$Outcome_i^* = \beta^i x_i + \epsilon_i$$

The individual observation is i and corresponding errorϵ_i. Similarly, for any dependent variable the logistic regression model is.

$$\text{P r}\,(Outcome = 0 \mid \text{X}) = \text{P r}\,(Outcome_i^* \leq \tau) = \Pi$$
$$\text{P r}\,(Outcome = 1 \mid \text{X}) = \text{P r}\,(Outcome_i^* > \tau) = 1 - \Pi$$

'r' is the threshold value and outcome variable is equal to zero, below the threshold value. There is no progress in the above threshold value outcome variable equal one representing development in result each outcome variable.

The data presented in Table 1 pertains to both the dependent variable and the predictors. The independent variables include gender, teaching experience, and professional staff satisfaction with educational monitoring staff. Training of teachers, monitoring staff attitudes, provision of basic facilities, objectives of educational monitoring authorities, future planning, academic assessment, teacher selection, and divisions. The model of econometric is precise as under:

$$Outcome_i = b_0 + b_1 gender_i + b_2 experience_i + b_3 trained\ staff_i + b_4 satisfaction_i + b_5(\text{professional}\ teachers)^2{}_i + b_6 attitude_i + b_7 facilities_i + b_8 planning_i + b_9 checking_i + b_{10} recruitment_i + b_{11} region_i + b_{12} division_i + e_i$$

Table 1: ***Depiction of both dependent and explanatory predictors***

Variable	Explanation
Dependent variables	
Result of Student	Monitoring improved students' academic performance
Dropout rate	Education monitoring authority decreased students drop-out rate
Non-teaching staff absenteeism	Non-teaching staff absenteeism reduced by monitoring
Regularity of teachers	Monitoring has improved teachers absenteeism
Independent variables	
Professional	Monitoring staffs are professional
Satisfaction from EMA	Institution staffs are satisfied from the existing monitoring system
Gender	Male and female participants
Teacher understanding	Respondent teaching experiences is continuous variable
Teachers training	Teachers are given training by the monitoring staff
Satisfaction of Teacher regarding DCMA attitude	The attitude of data collection and monitoring assistant is polite and teacher are satisfied with EMA
Monitoring basic facilities	The staff of the education authoring checks the basic facilities
IMU aim and future planning	Plan for future and develop the current position of school is the aim of the education monitoring authority
Checking the academic record	Result of the students is checked by the monitoring assistant
Teaching selection via NTS	National testing services recruits teaching staff
Region	Khyber Pakhtunkhwa, Pakistan (Urban and Rural Area)
Divisions	Malakand, Hazara, Peshawar, DI Khan, Kohat

RESULTS

Descriptive statistics with dependent and explanatory variables are presented in Table

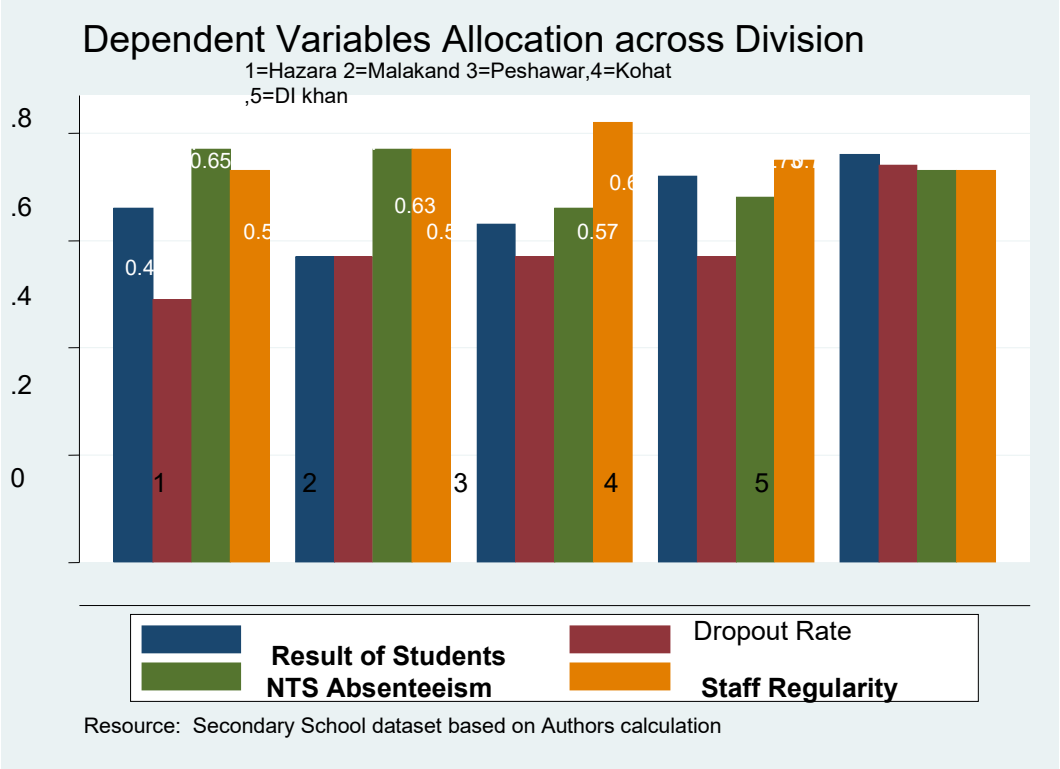
2. The dependents variables are binary in nature. The explanations of the dependent variables are;57 %, 47%, 61% and 65% for achievement of students, decline in dropout rate, diminution in teaching regularity and non-teaching staff absenteeism. Dependent variables have effected by explanatory variables in positive and negative way. Like, division of male and female participant is approximately the same. Almost 60% staff is professional. 79% of the teachers are satisfied with the educational authority. Furthermore, approximately 47% of the participant belongs to countryside across five units.

Table 2: ***Statistical summary***

Variables	**Mean**	**Std Dev.**	**Minimum**	**Maximum**
Dependent Variables				
Academic result	0.557	0.360	0	1
Dropout rate	0.477	.492688	0	1
Absenteeism of non-teaching staff	0.611	.4484621	0	1
Regularity of teaching staff	0.65	.4275109	0	1
Explanatory Variables				
IMU trained	0.603	0.3458370	0 = No	1= Yes
Satisfied from IMU	0.79	0.311511	0 = Male	1 = Female
Gender	0.40	.4004115	0	1
Teacher experience	6.56	6.143015	1	38
Teachers Professionalism	0.61	0.3383375	0	1
Monitoring staff attitude	2.16	0.212275	0	1
Facilities	2.333	0.218872	0	1
Future planning and aims of Monitoring	2.445	0.13164	0	1
Academic result of the student	1.853	0.2638	1	4
Selection of teacher through NTS	2.643	0.0857	1	4
Area	0.476	0.5001	0 = Urban	1 = Rural
Sectors	2	0.304	0	4

The given figure 1 shows the division of dependent variables likes academic success and dropout rate, students' reduction, non-teaching staffs' absenteeism reduction, and regularity of teachers in divisions. Kohat, D.I Khan, Peshawar, Hazara and Malakand are divisions where data were collected. Majority of dependent variables improved significantly. Almost all of the division 's teacher's regularity is significantly improved.

Figure 1: ***Divisions Allocation of variables***



Dependent Variables Allocation Over Division Interpetation

In the logistic regression. Models A1, B2, C3 and D4 represent the result of the students, dropout rate, and teachers' regularity and absenteeism respectively in table 3. Satisfaction of teacher coefficient of educational monitoring authority is (0.713). The coefficient is positive and statistically significant. Likewise, the dependent variables (dropout rate, regularity and absenteeism), it shows statistically significant as well, and improves teachers' regularity. Similarly, basic facilities coefficient due to monitoring authority is (1.725). The level of significant is positive. The result shows that education monitoring authority improved basic facilities.

In the same way, the majority have mixed effect of the explanatory variables on the dependent variables. Particularly, the female teachers have an extra significant effect on the result of students' as compared to male teachers. This shows, about female students result is improved due to the education authority. Furthermore, selection of teachers by national testing services is additional substantial beneficial influence on students' outcome. The anticipated reduction in dropout rates is expected to be more

pronounced in rural areas compared to urban regions. Likewise, in Kohat and Hazara, division the dropout rate decline is fairly reasonable as related to the division of Malakand but, the dropout rate is meaningfully improved in Malakand division as compared to the DI Khan division. At the final point, the research results determine that the models are well precise.

Table 3: ***Models of Legit Regression***

Estimations	**A[1]**	**B[2]**	**C[3]**	**D[4]**
Monitoring staff is professional (Group No)				
Professional Yes	-0.078***	0.810***	0.561***	0.622*
	(-0.035)	(-0.361)	(-0.152)	(-0.155)
Satisfied from the new education authority (Group No)				
Satisfied (yes)	0.713***	1.041***	0.881***	1.048***
	-0.155	-0.171	-0.164	-0.164
Sexual category (Group, male)				
Female	0.277*	-0.0256	-0.0364	0.120
	-0.117	-0.14	-0.118	-0.124
Experience of teachers				
Experience	0.00552	-0.0107	-0.0236	-0.0160*
	-0.0136	-0.0132	-0.014	-0.004
Teachers Training (Group No)				
Yes	0.443**	0.544**	0.0432	-0.0155
	(0.144)	(0.134)	(0.158)	(0.161)
Satisfaction of Teachers (Group strongly disagree)				
Disagree	0.362	0.677*	0.544	0.850**
	-0.327	-0.348	-0.318	-0.347
Undecided	0.852**	0.502	0.605	0.803
	-0.368	-0.415	-0.388	-0.438
Agree	0.720**	0.403	0.0630	0.540
	-0.305	-0.341	-0.303	-0.36
Strongly agree	0.060***	0.224	-0.0477	0.824*
	-0.337	-0.354	-0.301	-0.382
School fundamental services (Group strongly disagree)				
Disagree	-0.120	0.212	0.310	-0.123
	-0.31	-0.343	-0.320	-0.346
Undecided	0.558	1.122**	0.331	0.527
	-0.388	-0.381	-0.388	-0.441

Agree	1.117***	1.488***	0.573*	0.155
	-0.305	-0.337	-0.308	-0.116
Strongly agree	1.048***	1.725***	0.338	0.208
	-0.315	-0.33	-0.282	-0.350
Future Planning and objectives of Inspection (Group strongly disagree)				
Disagree	-0.316	0.151	0.234	0.114
	-0.324	-0.356	-0.336	-0.381
Undecided	0.812*	0.845*	-0.060	0.101
	-0.388	-0.378	-0.336	-0.373
Agree	0.15	0.311	0.018	-0.006
	-0.282	-0.31	-0.282	-0.220
Strongly agree	0.225	1.181***	0.287	0.413
	-0.304	-0.347	-0.311	-0.465
Result of students (Group no)				
Disagree	-0.688**	-0.153	-0.101	-0.135
	-0.267	-0.24	-0.440	-0.275
Undecided	-0.231	0.710*	-0.053	-0.221
	-0.327	-0.32	-0.315	-0.350
Agree	-0.130	0.165	0.137	-0.344
	-0.305	-0.274	-0.277	-0.303
Strongly agree	0.182	0.677*	1.028**	0.312
	-0.345	-0.322	-0.335	-0.333
Teaching selection via national testing service (Group, strongly disagree)				
Disagree	0.51	-0.120	0.0806	-0.166
	-0.404	-0.422	-0.418	-0.448
Undecided	0.752	-0.038	-0.035	-0.430
	-0.421	-0.441	-0.413	-0.460
Agree	0.621	0.128	0.120	0.204
	-0.342	-0.385	-0.360	-0.413
Strongly agree	1.111***	0.070	0.418	-0.400
	-0.330	-0.385	-0.354	-0.405
Area (Group , urban)				
Rural	0.03	0.343*	0.0662	0.108
	-0.121	-0.121	-0.116	-0.130
Division (Region, Malakand)				
Hazara	-0.242	0.476*	0.0415	0.302

	-0.224	-0.225	-0.344	-0.354
Peshawar	-0.058	0.386	-0.52	0.498
	-0.26	-0.266	-0.379	-0.394
DI Khan	0.207	0.117	-0.733*	-0.115
	-0.283	-0.274	-0.39	-0.431
Kohat	0.272	0.835**	-0.46	-0.319
	-0.257	-0.395	-0.363	-0.372
	-0.507***	-3.450***	-0.972	-0.800
Constant	0.757	-0.940	-0.652	-0.649
Diagnostic Results				
	0.188	0.123	0.113	0.112
	73.47	103.70	61.36	60.08
	0.00	0.00	0.00	0.00
	-144.506	-260.775	-263.896	-245.826
	400	400	400	400

1. Logit model, A1 Student achievement, dependent variable
2. Logit model, B2Dropout rate dependent variable
3. Logit model, C3 Non-Teaching staff, dependent variable
4. Logit model, D4 teachers' regularity, dependent variable

DISCUSSION

The research study explained the educational monitoring authority mechanism and its improvement on the performance of public sector school in Khyber Pakhtunkhwa Pakistan. The researcher concluded from the aforementioned analysis of the data and is discussing various elements that influence school performance.

Through this study researcher has discovered that most of the teachers are content with the education authority. Educational monitoring authority has little bit improved student academic achievement. One of the research study conducted internationally related to educational monitoring and inspection specifies, that monitoring and inspection system has contained different standards about teaching and learning, and achievement of schools(Snook, O'Neill et al. 2009). Another study formerly done by another researcher has reviewed 666 meta-analyses of different aspects leading to student achievement and finds a pertinent educational concern, likes 'expectations of teacher, relationship of students and teacher and teacher professional development (Scheerens and Blömeke 2016).The findings related to the teacher regularity and student dropout rate are statistically significant. This research study presents the educational monitoring authority satisfaction, teaching and non-teaching staff regularity, academic achievement and dropout rate as well. Furthermore study

conducted in many other countries in 2002-2005about absenteeism and regularity of the staff proposes that, the small group of organization is not responsible to the promotion of the institutions(Alcázar, Rogers et al. 2006).Besides, this other study conducted by (Chaudhury, Hammer et al. 2006) stated that, two reasons, much devotion of teachers does not justify to the absence of the teachers. After that Shortage of various facilities in school directly affects the schools' performance. Similarly, low packet for the staffs reduces the trained and motivated teachers. Another research done by (Rogers and Vegas 2009) in Northern Carolina revealed a correlation between teacher absenteeism and low academic performance among primary school students. In addition to this, a research Conducted by (Van der Berg 2007), focuses on Zambian primary schools. In primary level educational inspection unscheduled visits to schools on regular basis throughout the year decrease teacher absence (Hanna, Duflo et al. 2012). A latter-day study conducted in Pakistan by (Samad and Ali 2020) revealed that consistent school visits decreased teacher absenteeism and improved their attendance.

Another renowned research study discovered that implementing the program in both significantly below-average and above-average English schools enhances students' outcome (Webbink, Luginbuhl et al. 2009). A fresh research by (Ali and Samad 2020) investigated the impact of an independent monitoring system on the regularity of teaching and non-teaching staff before and after its implementation over a four-year period. A case study conducted by (Ehren and Visscher 2008) demonstrated that schools utilize the feedback they receive during visits to enhance their performance. Additionally, public reporting is expected to create a "market mechanism" whereby school improvement is driven by parental input and informed school selection (Ehren and Visscher, 2008). Furthermore, applying various methods to different individuals and demographic groups could potentially alter the research findings in the future. Specifically, seeking expert opinions could lead to the recommendation of conducting a comparative study to assess how different monitoring and inspection systems impact school performance.

RECOMMENDATION:

It is recommended that educational monitoring authority has to be implemented properly.

Proper training should be given to the monitoring staff. Monitoring staff should check teaching learning process not only teacher absenteeism.

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