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The Impact of Classroom Environment and Parental Socio-Economic Status on the Students' Academic Achievement at Secondary School Level in Khyber Pakhtunkhwa, Pakistan

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Abstract

The main objective behind this research study was the investigation about the classroom prevailing environment and the kind of socio-economic prestige and status of their parents on the student's achievement at the academic level (SAA) by taken into consideration the students' level (SSL) in the Khyber Pakhtunkhwa, Pakistan. Most of the studies previously conducted in this area were either related to environment of learning, related to classroom or school premises. The uniqueness of this study was shed light on the overall impact and considered the classroom premises, school environment and the socio-economic status of their parents on the academic performance of the students. The data used here was mainly primary data which was collected from different schools of the KP. The tools used for data collection was the questionnaire and was based on a five points of Likert scale. The data was collected from the total of 377 students of grad 9th and 10th. The districts selected for this research activity for collection of data were Peshawar, Mardan, Kohat, Swat, Charsadda and Malakand. To investigate the collected data the method of least square, correlation method, ANOVA and descriptive statistics were used. The finding from the study indicated that psychological and physical environment of the classroom has positive and encouraging influence on the academic performance and achievements of the students, while no impact has been sought out regarding the socio-economic position of their parents, except the education of their father which showed an encouraging and enhancing consequence on students' performance at the academic level. The study recommends the fruitful efforts by the policy makers, government and the school administrative body provision for a healthier infrastructure and other facilities in connection with improving the prevailing learning environment to develop and enrich the performance of the students at the academic level.

Keywords: Classroom Environment; Learning; Achievements; Socio-economic Status; KP;

Background of the Study

Learning can be attributed as a complex and complicated practice and process (Pimparyon et al., 2000). In the words of Entwistle (1995), learning can be defined as a process that mainly effect the academic performance and achievement of the students, coupled with a kind of environment that enhance the learning abilities of the students at all. As a matter of fact, a sound learning environment is characterized by an environment suitable for conductive learning and effective teaching. As stated by Marton and Saljo (1976), the students embrace two type of approaches for an effective learning. The first one is an approach related to surface learning and is mainly related to memorizing, remembering the things, figures and facts and to show great performance in the assessment and examination. The second type is an approach concerned with deep learning, and is mainly connected with comprehensive and inclusive learning, and is mostly a conceptual type of learning in which a student tries to know the in-depth meaning of a learned material, sentences and other ideas. The role and importance of secondary education cannot be ignored as it acts as a bridge between higher and primary education. This stage of learning and education provide the students an opportunity to

equipped supplementary knowledge and skills (Matthew, 2013). Education at the secondary stage is usually considered when a child obtained it as teenager, although the entrance and exit ages differ in different nations (Eubanks & Eubanks, 2009).

For a sound and successful coaching and schooling, the role of classroom and management cannot be ignored. For an effective and conductive classroom premises, the organization of all the factors like the pre-arrangement of lesson planning, classroom activities, the uses of AV aids are mandatory, which helps both the learners and teachers. Along with this an environment and premises in the shape of classroom, where a student and learners feel safe and secure, are involved in different activities and can be considered as an optimistic type of classroom setting. It is a fact that a conductive and sound learning environment enables the students to utilize their inner and hidden potentials and taking keen interests in the delivering material to them. This involves the instructions which are interesting and pro-active discipline (Lang et al., 1994).

In the path way, towards a quality and sound education, the environment of the classroom that enhances students' abilities and enriches the teacher's interest, is the foremost factor which should be taken as a mandatory. This includes the physical organization and arrangement of classroom premises to make the teaching learning processes more fruitful and effective in response of instructions. This also boosts the performance of pupils, teachers and the overall performance of the school. In this regard the importance of learners and teacher are believed to be the crucial factors in the environment of classroom. To achieve the aims and objective determined at the start of an activity related to teaching learning process, the role of physical classroom environment has an encouraging influence in boosting the competency of any type of organization and acts a catalyst to smoothen the pathway towards the pre-determined goals. But unfortunately, the desirable physical environment is not that kind of encouraging and effective for the achievement of these goals and resultantly the fatigue and frustration remains in the students (Suleman & Hussain, 2014).

The present study, for the examination and investigation about the classroom prevailing environment and the kind of socio-economic prestige and status of their parents on the students' achievement at the academic level, has taken into consideration the student's level in the Khyber Pakhtunkhwa, and has uniqueness in the sense that it has taken all the KP districts as large sample, with the application of OLS to evaluate the effect and influence of every variable. Moreover, the past studies only consider only one factor of school environment, to influence the students' academic achievement. like Schunk (1996), consider only classroom environment to influence the students' academic performance. Many studies consider a single school or district to examine the effect of leaning environment to influence the students' academic achievement and used only descriptive statistics and correlation matrix to evaluate the effect, which is insufficient, and the results are not reliable for forecasting.

Different studies have been conducted so far in highlighting the effect and influence of classroom learning environment, building of the school, school premises and environment, different methods of learning, different approaches to learning and its effect on students' development and performance at the academic level by different research scholars in all over the world. These studies are usually lack of reliability and could not be generalize in case of Pakistan, as the sample collected were either a school or a class, but the undertaken study have considered a large sample of about nine districts schools across Khyber Pakhtunkhwa. The research conducted in one district cannot be generalized for other districts, because of the difference in the demographic figures, social values, economic condition and the demand for an effective learning condition. Similarly, research conducted in this area is mostly descriptive in nature and the using of correlation methods for the estimation of the model variables. This study uses a unique method of regression analysis along with OLS techniques for the estimation of the parameters, which another studies lack. No other studies conducted in Pakistan and all over the worlds have taken the entire dimension into consideration regarding the environment for learning. Keeping in view the above stated short coming and gape, this research activity was conducted to curtail the existing gap and to quantify the factors for an environment effective for learning to influence the performance and achievement in KP. The results of this study can be generalized and can be applicable in the all districts of the Pakistan.

This research study is helpful in the sense as it furnished the necessary guidance for the school heads to evaluate teacher's competence and efficiency and also the learning outcome of the students. This will be also being helpful for the students to smear and apply democratic rules and

values with the classroom premises and in the school boundary, which is a very much necessary for establishing a democratic society. In the same manner this research study proved fruitful and beneficial as this lead to enable the students to identify the social responsibilities of their selves.

Relevant literature

Malik and Rizvi (2018), conducted a research study to examine the influence of the different assessments regarding the students for their learning status in the classroom upon their performance at the academic level for the students of mathematics in 10^{th} grade at secondary level. The data has been collected from a total of 516 students studying in 27 different classes. They applied the Pearson correlation technique and ANOVA to examine the data variables. The results from their finding depicts that involvement, personal consequence and stress upon understanding has a net positive consequence on the performance of the students at the academic level and the environment associated with learning in the classroom, while investigation and autonomy have a diverging negative consequence on the academic performance of the students.

Ibáñez et al. (2020), studied the impact regarding the technology on learning outcome and student's motivation and self-efficacy for pre and post assessment both for private and public schools at middle level. The data had been collected from a total of 93 different respondents. They found that improved technology has an enhancive constructive consequence on the learning style of the students. A strong correlation was found about the cooperating magnitude of different kind of school and the technology. A positive correlation was observed between the pro and post assessments and student's performance at the academic level. The technology-oriented environment was found to be more effective as it is mostly associated with web based in the public schools, while it lacks in private schools. An interactive effect of school type, technology and the time for assessment was observed while measuring the student's inspiration. Private school students are perceived to be possessing high motivation level as compare to public school students for using learning environment of augmented reality.

Tapia-Fonllem et al. (2020), accompanied a research activity in finding the correlation between the school environment and students well-being of primary schools. The data was collected from a total of 405 students studying in different class in government schools at elementary level in the north-western Mexico. They found that school learning environment was mostly affected by the physical, social and academic factors. The finding from their study revealed a significant and positive relationship between the environment prevailing in the school and well-being of the students.

Methodology

This study used the OLS regression technique for investigating the influence of learning environment upon the student's achievement at the academic level in the secondary schools of the Khyber Pakhtunkhwa in Pakistan. The design of the research is considered to be appropriate for the said study as this includes data gathered from all the respondents of the given population to evaluate the effect of independent variables on dependent variable (Mugenda & Mugenda, 2003).

Fraenkel et al. (1993), argues that the values of the correlation signify the kind of relationship in the variables. The present study undertakes the quantitative measures and procedures as the given variables were measured and analysed in number with the help of statistical tools and techniques. The given set of data was collected with the help of self-design questionnaire from the total of 377 students, who were studying in 10th class by the technique of random sampling. The districts included Peshawar, Swat, Kohat, Mardan, Charsadda and Malakand. The questionnaire design for the measurement of student's performance was measured in the form of percentage, while the other set of questions was with the help of five Likert scale.

The most extensively used methods for modifying field data of ground locations are classical least square algorithms. In some cases, the design matrix elements contain flaws that are often overlooked in traditional least-squares procedures, and this ignorance persists as an uncertainty in the solution findings (Acar et al., 2006). The Least Squares approach is a statistical strategy that may determine a model's line of best fit and aims to find the smallest sum of the squares of residuals. This technique is widely utilized in regression analysis and estimate (Weakley et al., 2014).

Model Specification

The Effect of Classroom Environment on SAA

$$SAA_i = \beta_0 + \beta_1 CI_i + \beta_3 CE_i + \beta_4 DC_i + \beta_5 G\&INC_i + \beta_6 CC_i + \beta_7 IgnorC_i + \beta_8 CEDS_i + \beta_9 InstEqEncg_i + \beta_{10} FeelISO_i + \mu_i \quad \ldots\ldots\ldots\ldots\ldots\ldots (1)$$

The effect and consequence of the parent's socio and economic position upon SAA

$SAA_i = \beta_0 + \beta_1 FQ_i + \beta_3 MQ_i + \beta_4 PINCOM_i + \beta_5 HE_i + \beta_6 HF_i + \mu_i$ ..... (2)

Where,

β_0, is the representation of the intercept,

$\beta' s$, symbolize coefficient values for independent values.

μ_i, is theerror term, while

'i,', is the subscript that signify the cross-sectional data.

Table 1: Description and Explanation of Variables

S#	Variables	Measurement Type	Symbol Used
1	Last Examination Percentage	Percentage	SAA
2	Infrastructure of Classroom	Rank	CI
3	Environment of Classroom	-do-	CE
4	Democratic style of Classroom	-do-	DC
5	Importance and Grade in classroom	-do-	GSINC
6	Challenging and Stimulating Courses	-do-	CC
7	Classroom Ignorance	-do-	IgnorC
8	Environment of classroom for Inactivated Students	-do-	CEDS
9	Encouragement for equal Participation by the instructor	-do-	InstEQEncag
10	Feeling of being isolated in class	-do-	Feeliso
11	Qualification of father	-do-	FQ
12	Qualification of mother	-do-	MQ
13	Income of Parents	-do-	PINCOM
14	Environment of Home	-do-	HE
15	Facilities at Home	-do-	HF

Analysis of Data and its Discussions

The Effect and Influence of Environment Prevailing in the Classroom on Students Achievement at the Academic Level

Table 4.2 depicts the resulted consequences of environment prevailing in the classroom upon the performance and achievement of students at the academic level with the consideration of coefficient being standardized. It was observed that the infrastructure in the classroom has an encouraging and positive consequence on student's achievement at the academic level. The finding in in line with Domenech (2012) who designates a positive correlation between the two variables. Similarly, Turano (2005) showed an enhancing relationship among the various factors like classroom environment, physically existing environment, infrastructural organization and the students' academically performance and learning. Alike, Malik and Rizvi (2018) found an inline association between the classroom environment and students performance and achievement at the academic level. In the same way, Dorman (2001) and Cheng (1994) highlighted an encouraging and enhancing correlation between the two stated variables.

It is argued that in the queue of independent classroom environment, where there is no ban on expression of one's ideas, having open expression of thoughts and ideas have adverse consequences on the performance of students at the academic level. Students who were allowed to express their opinion with no bar lead to disturb the learning environment. These finding shows divergence to the finding of Turabik and Gün (2016),who believes that democratic type of classroom has an encouraging impact on the performance of the students. The contrasting results were presented by Ackley et al. (2003), Ferguson-Patrick (2012).

The fairness and clarity in the marking criteria of the teachers have an encouraging and significant consequence on the performance of the students at the academic level. These finding are in line with Reyes et al. (2012), who found a stating relationship between the two variables. They stated that an enhancing correlation exist between emotion relevancy and instruction based on classroom leads to promote the performance of students at the academic level. The students enjoyed that type of coursed which were presented to them as a challenging task towards their values and beliefs has positive and noteworthy consequence on the performance of the students at the academic level. The finding is similar to that of Boaler et al. (2018), who showed that group who were tested with open and online tend of course were reported additional constructive beliefs in the subject of mathematics

were involved more intensively in the said subject and acquired higher grades at standardized math calculation.

Ingram and Nelson (2006), also forecasted the same kind of results about the student's attitude in the direction of evaluation being done. They found that the attitude of students before involving in the said course had a minor influence on the performance level of the students. However, their attitudes show a directional pathway with their final grade, regardless of the small influence. Those students who were ignored in the discussion and participation had badly hampered their performance level and achievement. Levine et al. (2014) had established the view that majority students have keep enhancing private attitudes to their academic achievement and performance at the academic level, with a notion of being their peers not holding this. The students had confirmed their apparent socially existing norms in the public deeds.

Regarding the disabled and partially impaired students an effective environment in the classroom has an encouraging and positive consequence on SSA. The results confirmed the finding of Guskey and Jung (2009) who are on the view that the instructor and teachers tried their best to bring clarity and fairness regarding grading, marking and other assignment to almost all disabled students in the classroom premises. Most of the teachers used individual and informal ranking modifications for disabled students. Those instructor and teachers who posture a balance encouragement for the participation of students the whole in class has an encouraging consequence on SAA. While students are being feeling in isolation in class has an adverse effect on their SAA.

Table 2: The Effect and Influence of Classroom Environment on Students Achievement at the Academic Level

Variables	Stad: Error	Beta	Value t- value	Sig:
Constant	0.041	0.763	18.439	0.000
Infrastructure of Classroom	0.007	0.192	3.950	0.000
Environment of Classroom	0.004	0.115	2.340	0.020
Democratic mode of Classroom	0.003	-0.119	-2.581	0.010
Grading in Classroom	0.003	0.193	3.725	0.000
Stimulating Courses	0.003	-0.101	-2.065	0.040
Ignorance factor in classroom	0.003	0.046	0.929	0.353
Environment of classroom for restricted students.	0.004	0.197	3.874	0.000
Equal participation by the Instruction to all students	0.004	0.078	3.874	0.000
Students Participation in class	0.004	0.078	-1.666	0.097
Feeling of being isolated	0.004	-0.338	-6.801	0.000

Data source: Author self-compilation

The Social and Economic Status of Parents and Its Impact on Students Achievements at the Academic Level

Table 4.3 depicts the consequences of parent's socio and economic status upon the achievement of students at the academic level (SAA) by considering the standardized co-efficient. It is clear from the below table that qualification of father has a noteworthy and positive impact on students' achievements, while that of mother qualification has statistically inconsequential consequence on SAA. The income of parent's proved to be having an insignificant relationship on SAA, and the same type of relationship was observed with environment in home. Different facilities provided at home shows and insignificant association with performance of students at the academic level. Saifi and Mehmood (2011), found the same kind of relationship between socio and economic status of parents and that of SAA. Vellymalay (2012), found that the socio and economic position of parents had strong influence on the academic performance of the students. It was observed that employment status of the parents, income level of the parents and involvements of parents contribute significantly to the grades of students.Kung (2016), found the psychological support of parents and encouragements are the key indicators in enhancing the academic achievements of the students as found by the study in Taiwan. He further states that the socio and economic status of parents has an indirect influence on the academic achievements of the students. Suleman and Hussain (2014), Indicated that income of parents, their occupation and educational status had greatly influence the academic performance of the secondary school students.

Al-Matalka (2014), dig out a positive relationship between the socio and economic status of parents and the corresponding performance of students at the academic level, while qualification of parents influenced more that occupational upon the students' performance.

Table 3: The Social and Economic Status of Parents and Its Impact on Students Achievements at the Academic Level

Variables	St. Error	Beta value	t-value	Sig
Constant Value	0.42	0.757	18.178	0.000
Qualification of Father	0.003	0.250	4.704	0.000
Qualification of Mother	0.003	-0.057	-1.063	0.288
Income of parents	0.005	-0.031	-0.617	-0.538
Environment at home	0.006	-0.064	-1.241	0.216
Facilities at home	0.007	-0.007	-0.144	0.886

Source: Author's self-compilation

Deriving Conclusion and Recommendations

The study recommended a favourable and effective environment in the classroom premises to promote the teaching and learning process more smoothly. Classroom physical environment is considered to be mandatory that is beneficial for an effective delivering of instruction and eventually help the instructor in teaching and learning process. Regrettably, it is observed the physical environment of the classroom is not sound and encouraging for a smooth learning process and resultantly leads to fatigue and frustration among the students in the class. This study was conducted to dig out the impact and correlation between the socio and economic position and status of the parents of students upon their achievement and performance at the academic level by taking the data of students studying in secondary classes in the various districts of KP in Pakistan.

Most of the previous studies conducted in this area are mostly focused on the learning environment. The undertaken study is focused on the overall impact of environment in the classroom and its relationship with the socio and economic status and students' achievement academically. The data used here is primary data collected from different schools in the KP districts. The tool used here is the self-made questionnaire by the researcher for the measurement of students' achievement in grade 9^{th} and 10^{th} students on a five Likert scale. Total of 377 students were taken from the various school of the districts Swat, Charsadda, Dir, Kohat, Malakand, Mardan and Peshawar. To analyze the data the ordinary method of least square, correlation method, ANOVA and the descriptive statistics are used.

The undertaken study concluded that psychological and physical environment in the classroom premises has a noteworthy and encouraging consequence on the academic achievement of the students, while that of socio and economic position of the parents have no impact on the academic performance of the students (SAA), except the father's occupation that was found to be significant impact on the academic performance of the students academically. The study recommended that the policy makers, government bodies, administration of the school have to make sure and made reasonable efforts for the provision and furnishing of a better infrastructure and other connecting facilities for the improvement of the existing environment in the school to ensure a sound learning background for the purpose of enhancing the performance and achievement of the students at the academic level.

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