

INFRASTRUCTURAL AND INSTRUCTIONAL FACILITIES AS SIGNIFICANT PREDICTORS OF INSTITUTIONAL EFFECTIVENESS

¹Amit Kauts, ²Gifty Arora

¹²Professor & Dean, Department of Education, Guru Nanak Dev University, Amritsar

Abstract

The present investigation brings in limelight the effect of Infrastructural and Instructional facilities on Institutional Effectiveness. 174 schools were selected for the purpose of data collection. Out of these 174 schools, by applying 27% Kelley's criterion, no. of high and low effective schools was 47 respectively. Two tools were used to collect the data i.e. Institutional Effectiveness Scale and Infrastructural and Instructional facilities checklist. These both tools were prepared by the investigator. The study found that the predictive variable (Infrastructural and Instructional facilities) can predict the criterion variable (Institutional effectiveness). It implies that Infrastructural and Instructional facilities play an important role in predicting the criterion variable (Institutional effectiveness). Infrastructural and instructional facilities have significant positive association with Institutional effectiveness.

Keywords: Infrastructural and Instructional facilities and Institutional Effectiveness.

INTRODUCTION

Schools, being the second home, serve a number of purposes in a child's life. From boosting their confidence to making them learn the importance of team work and socialization, schools do it all. Away from home, schools become the place for children to spend their maximum time. Children are sent to school considering the fact that there is an experienced hand to guide them and also a safe environment promoting growth. We also accept the fact that infrastructure plays a budding hand in creating a favorable environment for a child's growth. Schools should create an environment that not only assures learning, but also pays special attention to the mental and physical well-being of the students. Studies and researches conducted to figure out the effect of infrastructure suggest that students in schools with poor infrastructure can have lower achievement scores as compared to the ones

studying in schools that have better infrastructure and facilities. However, there are times when irrespective of poor infrastructure, students perform meritoriously. People may argue that physical space is secondary and concentration is what matters but researchers and psychologists suggest that environmental factors can increase the academic performance and motivate attendance. It's proven that overcrowded and stressful environment can affect the learning capabilities of children. The site for educational institutions like schools is a crucial concern as noise and temperature levels are said to affect the understanding levels in students. Physical conditions can leave both positive and negative effects on the students' all-inclusive development. School buildings, classrooms, playgrounds and libraries are the most important aspect of school infrastructure. Spacious and refurbished buildings and well-ventilated classrooms are a must in schools. Well-equipped labs enable them to perform lab

activities more effectively. Facilities like extracurricular workshops, libraries, halls, games equipment, assembly area and proper sanitation facilities are some of the infrastructure essentials that every school should provide to its students.

Infrastructural and Instructional facilities

Mwiria (1985) believes that the quality and quantity of teaching and learning resources have an impact on students' performance. Moreover, it was found that institutions with adequate facilities, such as textbooks, have a better chance of scoring well in exams than those with inadequate facilities. Ayot and Briggs (1992) pointed out that poor educational outcomes are related to the amount of resources and instructional materials allocated to it. This research focused on textbooks and the use of ICT in education because they are important teaching tools. Adeogun (2001) discovered that instructional resources and academic performance had a very strong positive association. He went on to say that schools with more resources did better than schools with fewer resources. He observed a scarcity of instructional resources in public schools, claiming that both teaching and learning resources are scarce in modern public schools. He stated that if basic instructional resources are not available in the classroom, effective teaching cannot take place. Gujjar et al. (2010) discovered that the majority of schools lacked instructional facilities and teaching tools. Furthermore, in the majority of schools, scientific laboratories and related equipment were not provided in accordance with needs. Acharya & Maharjan (2017) investigated that private schools have greater teaching facilities than public schools. The computer-assisted teaching method, as well as distinct computer and science labs, were better handled in private schools than in public schools. Because private schools have a superior final test outcome than public schools, they have added an extra coaching class for its students. Padder & Shanmugam (2017) revealed that no school in the rural block has more than ten classrooms, and more than 60% of schools do not have computers; the remaining schools have an average of two computers for official use only.

It was also discovered that more than 70% of the schools were dissatisfied with their current infrastructure. Zainuddin & Subri (2018) found that students who have access to suitable physical facilities that are in good working order are more likely to perform well in the learning process and exams. Arshad et al. (2019) found that school support facilities such as tablet, I.T Lab, ventilation, first aid medical box, gas, store room, ECE/kids room, staff room, and library greatly helped to academic achievement at Punjab (Pakistan) Education Foundation partner schools.

Institutional Effectiveness

Brookover (1979) emphasised firmly that the features of a good school are not separate elements, but rather are intertwined and must be viewed as a whole. Qualitative (school atmosphere, instructional leadership, high expectations, etc.) as well as quantitative characteristics should be included in definitions of effectiveness. School effectiveness, according to Scheerens (1992), relates to the performance of the organisational unit known as the school. The output of the school, which is measured in terms of the average achievement of the children at the end of a period of formal learning, can be used to describe the school's performance. Professional leadership, shared vision and goals, a learning environment, concentration on teaching and learning, purposeful teaching, high expectations, positive reinforcement, home-school partnership, and a learning organisation were among the processes of effective schools summarised by Sammons, et al. (1995). Lezotte (2002) investigated the Correlates of Effective Schools: The First and Second Generation and how it had changed over thirty years. The following factors were found to be associated in the study: 1) Instructional Leadership, 2) A Mission that is Clear and Focused 3) a secure and tidy environment 4) a high-pressure atmosphere 5) regular monitoring of student achievement 6) excellent home-school relationships 7) learning opportunities and student time on task. Kolander (2003) investigated the Quality Philosophy Characteristics of Wisconsin Evangelical Lutheran Synod Schools. The study discovered

that the schools had traits that were consistent with quality school characteristics, with higher achieving schools having more quality characteristics than lower achieving schools. Ghani et al. (2011) discovered that excellent schools in Malaysia have better application of good school practices at a highly frequent level. Furthermore, it was shown that there is a significant link between principal leadership and successful school performance and improvement strategies in Malaysia and Brunei's exceptional schools. Setwong & Prasetcharoensuk (2013) discovered that empirical data fit the structural equation model of instructional leadership of school administrators on school success. According to Panigrahi (2014), school effectiveness and classroom teaching are unrelated or unconnected. Gada et al. (2018) found that there is a significant effect of audio visual aids and realia uses by mathematics teachers on the academic performance of Government Secondary school students in Sokoto South Local Government Area. According to Ramberg et al. (2018), higher levels of perceived teacher care were associated with all three dimensions of school success (school leadership, teacher collaboration and consensus, and school ethos.) Martin (2021) examined the relationship between effective principal leadership practices and school effectiveness as ascertained by teachers in primary and secondary public schools in Grenada. Effective Principal Leadership Practices and School Effectiveness have a positive association, according to him.

Statement of the Problem

Infrastructural and Instructional Facilities as significant predictors of Institutional Effectiveness

Objectives of the Study

1. To develop a tool for measuring Institutional effectiveness
2. To explore the Infrastructural and instructional facilities as significant predictors of Institutional Effectiveness.

Hypothesis of the Study

There exists no significant prediction of Institutional Effectiveness by Infrastructural and Instructional facilities.

Delimitations of the Study

The study has been limited to Senior Secondary Schools of Amritsar, Jalandhar, Ludhiana, Kapurthala, Hoshiarpur and Gurdaspur districts of Punjab State.

Sample of the Study

There are total 1350 CBSE schools in state of Punjab. By applying Cochran's formula for calculating sample size, 174 schools have been selected for the purpose of data collection. Out of these 174 schools, by applying 27% Kelley's criterion, no. of high and low effective schools was 47 respectively.

Tools Used

1. Institutional Effectiveness Scale prepared by the investigator.
2. Infrastructural and Instructional Facilities Checklist prepared by the investigator.

Procedure of the Study

Institutional Effectiveness has been treated as an independent variable and used for the purpose of classification only. For the purpose of present investigation, Institutional Effectiveness Scale and Infrastructural and Instructional Facilities Checklist were administered to 174 selected CBSE schools. After applying 27% Kelley's criteria, 47 schools were selected as High effective and 47 schools were selected as low effective.

Analysis and interpretation of data

In order to explore the effect of Infrastructural and Instructional facilities on Institutional effectiveness, regression has been calculated and the results are presented in the given below Table 1:

TABLE 1 SUMMARY OF REGRESSION ANALYSIS OF INFRASTRUCTURAL AND INSTRUCTIONAL FACILITIES AND INSTITUTIONAL EFFECTIVENESS

Variable	R	R ²	Adjusted R ²	F-value
Infrastructural and Instructional facilities	0.891	0.794	0.792	354.105**

**Significant at the 0.01 level of confidence

The above Table 1 shows the correlation coefficient of Infrastructural and Instructional facilities & Institutional effectiveness. The correlation coefficient of Infrastructural and Instructional facilities & Institutional effectiveness is 0.891 with square is 0.794. Regression suggests that Infrastructural and Instructional facilities can explain 79% variance of the criterion variable (Institutional effectiveness).

TABLE 2 SUMMARY OF ANOVA FOR REGRESSION

Model	SS	Df	MS	F	Sig.
Regression	707529.35	1	707529.35	354.105	.000**
Residual	183823.12	92	1998.07		
Total	891352.47	93			

**Significant at the 0.01 level of confidence

It may be observed from the above Table 2 that the obtained F-value 354.105 is statistically significant at the 0.01 level of confidence which indicates statistically significance of the relationship between Infrastructural and Instructional facilities and Institutional effectiveness. The predictive variable (Infrastructural and Instructional facilities) can predict the criterion variable (Institutional effectiveness). Therefore, regression analysis is allowed and feasible.

TABLE 3 SUMMARY OF COEFFICIENT OF REGRESSION

Model	Unstandardized coefficients		Standardized coefficients	t-ratio	Sig.
	B	Std. error	B		
Constant	309.37	29.88		10.35	.000**
Infrastructural and instructional facilities	7.214	0.383	0.891	18.81	.000**

**Significant at the 0.01 level of confidence

Table3 shows B=7.214 and t=18.81 which is significant at the 0.01 level of confidence. It implies that Infrastructural and instructional facilities play an important role in predicting the criterion variable (Institutional effectiveness). The regression equation formulated from these two variables is as given below:

Institutional Effectiveness = 309.37 + (7.214) Infrastructural and instructional facilities

These findings lead to conclude that Infrastructural and instructional facilities have significant positive association with Institutional effectiveness. Therefore, the

hypothesis namely, "There exists no significant prediction of Institutional Effectiveness by Infrastructural and Instructional facilities" has been rejected. That means Infrastructural and instructional facilities are significant predictors of Institutional effectiveness. This finding corroborates with the results of following studies:

Mwiria (1985) discovered that students' performance is influenced by the quality and quantity of teaching and learning resources. It was further found that institutions with adequate facilities, such as textbooks, have a better chance of scoring well in exams than those with inadequate facilities. Zainuddin &

Subri (2018) found that students who have access to suitable physical facilities that are in good working order are more likely to perform well in the learning process and exams.

Discussion on findings

The present study analyzed the effect of effect of Infrastructural and Instructional facilities on Institutional effectiveness. It has been observed that there is significant relationship between Infrastructural and Instructional facilities and Institutional effectiveness. The predictive variable (Infrastructural and Instructional facilities) can predict the criterion variable (Institutional effectiveness). It implies that Infrastructural and Instructional facilities play an important role in predicting the criterion variable (Institutional effectiveness). Infrastructural and instructional facilities have significant positive association with Institutional effectiveness. This finding is in tune with the studies conducted by Ayot and Briggs (1992) pointed out that poor educational outcomes are related to the amount of resources and instructional materials allocated to it. This research focused on textbooks and the use of ICT in education because they are important teaching tools. Adeogun (2001) discovered that instructional resources and academic performance had a very strong positive association. He went on to say that schools with more resources did better than schools with fewer resources. Ayoo (2002) carried out a study on the influence of school physical facilities on academic performance and discovered that the availability of facilities had a clear link with learners' test performance. Joy (2016) investigated the impact of school facilities on students' academic performance, concluding that school facilities should be considered as factors that enhance secondary school education goals, but the study found no evidence of the impact of school facilities on students' academic performance, particularly in the classroom. Singh and Kumar (2017) looked at the impact of infrastructural facilities on management graduates' academic achievement and job placements at a few B-Schools in Bangalore. They discovered a positive

association between these variables, implying that all of the required physical infrastructure facilities must be present on the campuses of the universities. Arshad et al. (2019) found that school support facilities such as tablet, I.T Lab, ventilation, first aid medical box, gas, store room, ECE/kids room, staff room, and library greatly helped to academic achievement at Punjab (Pakistan) Education Foundation partner schools. Chika & Ogechi (2019) revealed that there is a link between the state of infrastructural facilities and classroom management in Rivers State senior secondary schools, and it is recommended that adequate funds be made available for the construction of infrastructural facilities for effective classroom management, that existing infrastructural facilities be maintained for effective utilisation, and that classroom teachers be trained on how to use them. Assumpta & Andala (2020) found that the insufficient school infrastructures shown in twelve years of basic education lowers students' academic achievement.

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