

## **Instructional Facilities in Secondary Level School of Banke District, Nepal**

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### **ABSTRACT**

*Talking about the instructional facilities indicates the facilities available for the classroom teaching and learning of students. This is the age of modern technology so students want to learn with new tools and techniques. In this context, school should be aware on the management of such basic facilities in school. The aim of this study is to identify the instructional facilities in secondary level school of Banke district of Nepal. The study was based on the descriptive and exploratory research design. In total 674 students from public and private secondary schools were selected for the study. Structure questionnaire survey was done to collect the data. The result shows that comparatively, the instructional facilities were better in private school than the public school. Private school had managed the computer aided teaching system, separate computer and science lab better than the public school. Considering the better result in final exam, private school has managed the additional coaching class for their students than the public school. Public schools are service oriented supported by Nepal Government so government should be responsible to improve the quality of teaching, learning and infrastructure development as the demand of modern teaching system.*

### **KEYWORDS**

Banke, Facilities, Instructional, School, Secondary

### **INTRODUCTION**

The instructional facilities cover the condition of school building, classrooms, classroom seats, laboratories, libraries, experimental equipment, chalkboard, audio-visual learning equipment, zoological gardens and experimental agricultural farms. Some authors had studied about the relationship between infrastructures and students' achievement who reported that there is a relationship between student achievement and the conditions of school buildings (Buckley, 2004a; Hunter, 2006; Filardo, 2008). Similarly, Hale found that students in classrooms with large windows, natural lighting, and well-designed skylights performed 19% to 26% better than their peers in classrooms without these features (2002). Hunter found that the environmental conditions in schools, which included the inoperative heating system, inadequate ventilation, and poor

lighting, affected the health and learning as well as the morale of students and the staff (2006). Olson and Kellum found sustainable schools and the good qualities of lighting, site planning, indoor air quality, acoustics, healthy building materials, and the use of renewable energy benefited student achievement (2003).

According to Earthman (2002), school facilities had an impact on teacher effectiveness and student performance. Older facilities had problems with noise level and thermal environment. Therefore, the age of school buildings played an important part in students' performance. According to Filardo (2008), school districts faced problems of the basic condition of their buildings as well as the need to modernize obsolete or old building designs. School had to face the problem of (a) early childhood education—the expansion of half day kindergartens to full-day programs for three years olds; (b) technology for instruction, security, and administration—need for electrical upgrades, video, data highways, computers, smart boards, and other classroom technology; and (c) science education—laboratory, hands-on, and inquiry-based science (Filardo, 2008). There are no lavatories for girls at the Juba campus. This makes it difficult for girls to stay for the whole day in the campus area. The growing number of students creates a bigger pressure on the campus facilities every year.

Studies in the Capistrano Unified School District (CUSD) in Orange County, California found that the students in classrooms with natural lighting, large windows or well-designed skylights performed 19 to 26 percent better than their peers in classrooms without these features (Hale, 2002). Anchorage, Alaska schools developed a committee dedicated to selecting “equipment in which students can work comfortably, furnishings that create an aesthetically pleasing ambience, and furniture that stands up to the rugged treatment it receives from daily student use” (Kennedy, 2003). The study indicated that age was a surrogate for other variables of building condition such as lighting, temperature control, proper lighting, sound control, support facilities, laboratory condition and aesthetic values (Earthman & Lemasters, 1996). School systems promoting smaller campuses have also found that the sharing of student-support facilities such as libraries and gymnasiums have lowered the construction and operating costs of decreasing school size (Nathan, 2002).

After the political change in 1951, mass schooling began to expand in Nepal. Nepal National Educational Planning Commission (NNEPC), with the assistance of United States Overseas Mission, reported to the government a plan for education in Nepal. The commission suggested universal and free primary education. This report further suggested that primary education should be made compulsory after developing infrastructure and preparing for the supply of teachers (NNEPC, 1956). Although the report described inequalities in participation in schooling based on gender, caste, and language, it did not suggest any special arrangement for girls, Dalits and linguistic minorities. The report of NNEPC (1956) favored linguistic and cultural assimilation and suggested Nepali language as the medium of instructions (Poudel, 2007). While the Government has declared free education up to grade 10, the school grants-in-aid provided under the government policy cover the salaries of teachers, some small grants for administrative salaries and a token amount for operating expenses. There are inadequate funds for expenditures

for instructional materials, extracurricular activities, and so on which may affect in effective learning of teachers and students. So the concern of this study is related to the available instructional facilities in secondary level public and private school of Banke district. Banke district is located in the mid-western region of Nepal connected with the boarder of India. It is in plain area and has access of road and electricity. The involvement of private sector in education is in increasing trend. Guardians are also more interested to send their children in private school than public school. In Nepalese context, public school is symbolized as the school of poor, disadvantage and marginalized family because of its educational quality and quantity of basic infrastructure.

## **MATERIALS & METHODS**

The study was conducted among the 674 students of public and private school of Banke district of Nepal. The study was based on the descriptive and exploratory research design. The structured questionnaire was adopted to collect the quantitative data. The students were selected by using the simple random sampling design. The sample size was calculated from the standard formula considering the confidence level (95% = 1.96 value), estimated proportion of an attribute that is present in the population/prevalence/variability ( $p = .5$ ) and level of precision/error (0.03). The analysis was done on the basis of types of school by using the crosstab method and relationship was explored from the analysis of Pearson Chi-Square test.

## **RESULTS & DISCUSSION**

Educational resources are means through which information is effectively communicated from the teacher to the learners. In the school settings, textbooks, all types of buildings (academic and non-academic), equipment, classroom facilities, furniture, instructional materials, audiovisual aids, toilet, computers, and library and laboratory materials make up important school facilities that are required for effective learning (Joshep, Valentin, & Motunrayo, 2015, p. 11). The following tables' result that privates school students has got more instructional facilities from school than public school students.

### **1. Computer facility in classroom teaching**

Computer education in schools plays important role in student's career development. Computer with the internet is the most powerful device that students can use to learn new skills and more advanced version of current lessons. Schools are around the globe teaching student's basics of computers and internet. As the computer is the necessary instructional facilities of students, here in the following table public and private school showed their response. In total 77.7% agreed that there was a computer facility in class room teaching. However, within the types of schools, 64.7% students of public schools and 100.0% students of private school agreed in having the computer facility in their classroom which showed private school students have more computer facility than public school students (Table 1).

**Table 1: Computer in class room**

			Types of school		Total
			Public	Private	
Computer in classroom	Yes	Count	191	172	363
		% within total	52.6	47.4	100.0
		% within types of school	64.7	100.0	77.7
	No	Count	104	0	104
		% within total	100.0	0.0	100.0
		% within types of school	35.3	0.0	22.3
Total		Count	295	172	467
		% within total	63.2	36.8	100.0
		% within types of school	100.0	100.0	100.0
<b>Chi-Square test</b>					
			Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square			78.010 <sup>a</sup>	1	.000

The statistical analysis of Person Chi-Square test shows that there is significant association between the private and public schools regarding the instructional facilities like computer in the classroom because  $P=.000$  which is less than .05 significant level.

## 2. White board in classroom

As the board in the class room is one of the basic components of instructional facilities, here in the following table public and private school total students were 98.7% agreed on the availability of white board in class room. However, within the types of schools, 98.7% students from public school and, 98.6% students from private school were agreed in the availability of white board in their classroom, which showed that there were no differences between these two public and private school students.

**Table 2: White board in class room**

			Types school		Total
			Public	Private	
White board in class room	Yes	Count	448	216	664
		% within total	67.5	32.5	100.0
		% within types of school	98.7	98.6	98.7
	No	Count	6	3	9
		% within total	66.7	33.3	100.0
		% within types of school	1.3	1.4	1.3
Total		Count	454	219	673
		% within total	67.5	32.5	100.0
		% within types of school	100.0	100.0	100.0
<b>Chi-Square Tests</b>					
			Value	df	Asymp. Sig. (2-sided)

Pearson Chi-Square	.003 <sup>a</sup>	1	.959
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The statistical analysis of Person Chi-Square test shows that there is no significant association between the private and public schools regarding the instructional facilities like white board in the classroom because  $P=.959$  which is greater than .05 significant level (Table 2).

### 3. Board markers for white board

Without marker teacher and students unable to write in the white board, so, it is also one of the instructional facilities of classroom to the students and teacher. The extracted table elaborated the students agreement and disagreement on the point of availability of marker to write in the white board, in total 94.5% students reported the availability of marker in class room to write in white board, where 93.8% from public school and 95.9% were from private school agreed, which showed that there was also not so vast differences in the students agreement about use of marker in the white board in the classroom.

**Table 3: Board markers for white board**

			Types of school		Total
			Public	Private	
Marker to write in white board	Yes	Count	426	210	636
		% within total	67.0	33.0	100.0
		% within types of school	93.8	95.9	94.5
	No	Count	28	9	37
		% within total	75.7	24.3	100.0
		% within types of school	6.2	4.1	5.5
Total	Count	454	219	673	
	% within total	67.5	32.5	100.0	
	% within types of school	100.0	100.0	100.0	
<b>Chi-Square Tests</b>					
			Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square			1.204 <sup>a</sup>	1	.273

The statistical analysis of Person Chi-Square test shows that there is no significant association between the private and public schools regarding the instructional facilities like availability of marker to write in the white board in the classroom because  $P=.273$  which is greater than .05 significant level (Table 3).

### 4. Multimedia in classroom

Through multimedia technology teaching in the classroom is very effective, here in this table within types of school total students with 33.2% where 28.6% students from public and 42.7% students from private school agreed in the availability of multimedia in the class room, which showed that private school students had maximum agreement in the use of multimedia in the classroom.

**Table 4: Multimedia in class room**

			Types of School		Total
			Public	Private	
Multimedia in class room	Yes	Count	130	93	223
		% within total	58.3	41.7	100.0
		% within types of school	28.6	42.7	33.2
	No	Count	324	125	449
		% within total	72.2	27.8	100.0
		% within types of school	71.4	57.3	66.8
Total		Count	454	218	672
		% within total	67.6	32.4	100.0
		% within types of school	100.0	100.0	100.0
<b>Chi-Square Tests</b>					
			Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square			13.068 <sup>a</sup>	1	.000

The statistical analysis of Person Chi-Square tested shows that there is significant association between the private and public schools regarding the instructional facilities like multimedia in the classroom because  $P=.000$  which is less than .05 significant level (Table 4).

## 5. Separate computer class room

‘Practice makes man perfect’ to be in perfect in computer individual must use computer regularly, so, there should be separate computer in the classroom for the students. As the students of these two different schools where in total students 62.9% reported that there was separate computer class room in their school. Within the types of schools, 47.1% students of public school and 95.9% students of private school agreed about the separate computer class room in their school which identified that student of private school was using separate computer in the classroom than in the public school.

**Table 5: Separate computer class room**

			Types of school		Total
			Public	Private	
Separate computer classroom	Yes	Count	214	209	423
		% within total	50.6	49.4	100.0
		% within types of school	47.1	95.9	62.9
	No	Count	240	9	249
		% within total	96.4	3.6	100.0
		% within types of school	52.9	4.1	37.1
Total		Count	454	218	672
		% within total	67.6	32.4	100.0

	% within types of school	100.0	100.0	100.0
<b>Chi-Square Tests</b>				
		Value	df	Asymp. Sig. (2-sided)
	Pearson Chi-Square	149.977 <sup>a</sup>	1	.000

The statistical analysis of Person Chi-Square tested shows that there is significant association between the private and public schools regarding the instructional facilities like separate computer classroom because  $P=.000$  which is less than .05 significant level (Table 5).

## 6. Library in school

Children and their teachers need library resources and the expertise of a librarian to succeed. School libraries help teachers to teach children. A school library is an academic library that supports school programs as well as the teaching and learning process (Keith, 2004). The below table clarified that in total students, 87.7% said that there were library facilities to read them. Within the types of school, 85.5% students were from public school and 92.2% were from private school in the point of library inside the school which showed that library facility is more effective in the private school than public school.

**Table 6: Library in school**

			Types of school		Total
			Public	Private	
Library in the classroom	Yes	Count	388	202	590
		% within total	65.8	34.2	100.0
		% within types of school	85.5	92.2	87.7
	No	Count	66	17	83
		% within total	79.5	20.5	100.0
		% within types of school	14.5	7.8	12.3
Total	Count	454	219	673	
	% within total	67.5	32.5	100.0	
	% within types of school	100.0	100.0	100.0	
<b>Chi-Square Tests</b>					
			Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square			6.272 <sup>a</sup>	1	.012

The statistical analysis of Person Chi-Square tested shows that there is significant association between the private and public schools regarding the instructional facilities like library in the school because  $P=.012$  which is less than .05 significant level (Table 6).

## 7. Adequate book in library

Library helps teacher to teach students, however, if there were no adequate books in the library than it is just room. Books play an important role in everybody life. It is said that books are our best companions. As the following table elaborated that within types of school total students with 40.4% where 37.3% students from public school and 46.6% students were from private school

agreed in the adequate books in the library in their school which abstracted the adequate books in the library is in the private school than in the public school.

**Table 7: Adequate book in library**

			Types of school		Total
			Public	Private	
Adequate book in library	Yes	Count	168	102	270
		% within total	62.2	37.8	100.0
		% within types of school	37.3	46.6	40.4
	No	Count	282	117	399
		% within total	70.7	29.3	100.0
		% within types of school	62.7	53.4	59.6
Total	Count	450	219	669	
	% within total	67.3	32.7	100.0	
	% within types of school	100.0	100.0	100.0	
<b>Chi-Square Tests</b>					
			Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square			5.227 <sup>a</sup>	1	.022

The statistical analysis of Person Chi-Square tested shows that there is significant association between the private and public schools regarding the instructional facilities like adequate books in the library in their school because  $P=.022$  which is less than .05 significant level.

## 8. Science lab in school

It is imperative for schools to have the latest and high quality science lab supplies these days. Science lab equipment allows students to interact directly with the data gathered & they get a first-hand learning experience by performing various experiments on their own. Students of these two types of school, within types of school total students with 74.7% where 64.5% students were from public and 95.9% students were from private school agreed in the availability of science lab in their school which showed that private school students have science lab to experiment.

**Table 8: Science lab in school**

			Types of school		Total
			Public	Private	
Science lab in the school	Yes	Count	293	210	503
		% within total	58.3	41.7	100.0
		% within types of school	64.5	95.9	74.7
	No	Count	161	9	170
		% within total	94.7	5.3	100.0
		% within types of school	35.5	4.1	25.3



Total	Count	454	219	673
	% within total	67.5	32.5	100.0
	% within types of school	100.0	100.0	100.0
<b>Chi-Square Tests</b>				
	Value	df	Asymp. Sig. (2-sided)	
Pearson Chi-Square	76.923 <sup>a</sup>	1	.000	

The statistical analysis of Person Chi-Square tested shows that there is significant association between the private and public schools regarding the instructional facilities like science lab in the school because  $P=.000$  which is less than .05 significant level (Table 8).

### 9. Facilities of additional coaching class

Coaching classes are a support system for students preparing for board or competitive exams. Students within types of school total students with 69.9% where 56.6% students were from public school and 97.7% students were from private school in agreement in the additional coaching facilities in the school which showed that private school students had a coaching classes system to support their educational sector than public school students.

**Table 9: Facilities of additional coaching class**

			Types of school		Total
			Public	Private	
Additional coaching classes	Yes	Count	257	213	470
		% within total	54.7	45.3	100.0
		% within types of school	56.6	97.7	69.9
	No	Count	197	5	202
		% within total	97.5	2.5	100.0
		% within types of school	43.4	2.3	30.1
Total	Count	454	218	672	
	% within total	67.6	32.4	100.0	
	% within types of school	100.0	100.0	100.0	
<b>Chi-Square Tests</b>					
	Value	Df	Asymp. Sig. (2-sided)		
Pearson Chi-Square	118.327 <sup>a</sup>	1	.000		

The statistical analysis of Person Chi-Square tested shows that there is significant association between the private and public schools regarding the instructional facilities like additional coaching classes in the school because  $P=.000$  which is less than .05 significant level (Table 9).

## CONCLUSIONS

The study discussed the instructional facilities available in the public and private school of Banke district of Nepal. There is different facilities were observed and discussed with the students; there were computer facilities in class room teaching, white board and marker in each class, multimedia,

separate computer class room, library, adequate book in library, science lab, additional coaching class in school. From the analysis of response, it is found that in total 77.7% students reported about the availability of computer facility in class room teaching. However, comparatively, public school has fewer facilities (64.7%) than private school (100.0%). Similarly, availability of white board and markers in class room was found similar in both types of school. In average more than 95% students reported that they were using the white board and markers in school. Facility of multimedia was found very less in total (33.2%) where 28.6% in public school and 42.7% in private school. It indicates the weak practice of power point presentation in both types of school for the teaching and learning of students. In total 62.9% students said that there was separate computer class room where only 47.1% in public school and 95.9% in private school. The result shows the significant difference between the public and private school. The 87.7% students reported the facility of library in school where as only 40.4% said the adequate book in library so it needs to improve the quality of library. The status of availability of science lab also not equal in private and public school. In total 74.7% students reported the availability of science lab where as only 64.5% in public school and 95.9% in private school. The management of additional coaching class was also found better in private school (97.7%) than public school (56.6%). The private schools are profit motives so they try their best to improve the quality of their school. Quality of government schools should be improved very significantly because comparatively, instructional facilities are better in private school than the public school. The school management committee, principal, teachers and guardians should be conscious about the quality of teaching, learning and infrastructure of public school so that poor and disadvantage community children will get the effective education from public school.

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