

School factors and academic achievement: A comparative study of residential school children and rural government school children

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Abstract

The study compares the effects of school factors contributing to the High Academic Achievement of Private Residential School Children and Rural Government School Children. Sample consisted of 40 teachers from each category. Questionnaire for the teachers is developed by the investigator to study the contribution of school factors. The study reveals that contribution of School factors was high for private Residential Schools, Average for Rural Government Schools except method of teaching and curriculum and subject matter. There was no significant positive correlation between school contributing factors and Academic Achievement of Rural government school children. In Private Residential schools, there was significant positive correlation between achievement in English and Curriculum and Subject matter, Method of teaching. Teacher's qualification and classroom organization significantly contributed to achievement in Mathematics. Achievement in Science was positively correlated with Physical set up and Curriculum and subject matter.

Keywords: school factors, academic achievement, private residential and government school children

1. Introduction

Education is the most determinant factor to progress and excel in one's life. Effective teaching moulds the character of the students in such a way that they will become successful citizens of the country.

Education is being imparting to the individuals in different settings like private schools, public schools, residential schools, semi residential schools where curriculum, management, human and non-human resources varies widely from one setting to another. But success stories are hailing from all the schools and not limited to one particular education setting. Students from different educational settings are progressing in education and achieving high in the life. So it is important to compare the effects of different factors contributing for the Academic Achievement of children in different settings to make necessary improvement in needy areas.

2. General Objective

To compare the school factors contributing to the Academic Achievement of private residential school children and rural government school children.

2.1 Specific objectives

1. To study and compare the school factors contributing to the Academic Achievement of private residential school children and rural government school children.
2. To compare the relative contribution of the school factors for Academic Achievement of private residential school children and rural government school children.

3. Review of Literature

Previous Studies on school contributing factors were related to the Effect of Teacher's Characteristics and school environment.

Higher administrative behavior and lower dogmatism in teachers increases Academic Achievement (Sayres, 1986, Robert, 1989; Robinson, 1990 & Taj, 1999) ^[21, 22]. Higher qualifications and more administrative experience of school heads do not have significant effect on their school Academic Achievement. (Mathula 1986 ^[12]; George, 1989 ^[8]; Taj, 1999) ^[21, 22].

Children who perceived their teacher more attractive had highest scores than those who perceived their teacher less attractive (Ravi Shankar & Singh 1988). Effective class room environment would ensure better educational attainment for the child (Pandhi, 1991 ^[16] & Logic, 1992) ^[23].

Psycho-social environment of the class room could play an important role in the academic performance of the students (Gayani & Agarwal, 1998) ^[7]. Open and controlled school environment is conducive and favorable for the students High Academic Achievement (Ahluwalia & Reddy, 1990 ^[1]; Taj, 1999) ^[21, 22]. Significant positive correlation exists between classroom climate and Academic Achievement of learners in secondary schools (Sandra, 2004) ^[19].

School effectiveness is largely due to the school processes i.e., Teaching Evaluation, Planning, Teacher-student Relationship rather than school inputs i.e., school context, infrastructure activities, qualities (Kerawalla & Pandya, 1994) ^[10].

Students of central school tend to have more degree of creativity in them than studying in private schools (mishra, 1986) ^[13]. Public School and private school students' performance was better when compared to aided and government school children (Veeraraghavan, 1991; Farooqui, 1995 ^[3]; Wangoo, 1991; Bhujendranath, 1995; Bedi & Garg, 2000) ^[2]. Students who studied under detention system achieved better than those who studied under the no detention system (Reddy & Naidu, 1988) ^[18]. Furong (2008) ^[5] studied the rural urban difference in classroom environment found significant difference between urban and rural areas.

The lack of organization of learning space, lack of learner involvement in lessons and lack of classroom discipline contributes to poor Academic Achievement in secondary schools (jayshree Chrisenduth 2006) ^[9] Classroom environment accounted for statistically significant amounts of unique variance in student achievement scores. Whereas home and peer environment has insignificant influence on student outcomes in science and mathematics (Fraser 2007) ^[4].

Students perceived classroom environment was significantly related to their personal achievement goals and strategy use (Lau, and Lee 2008) ^[11].

School climate and scholastic success are correlated (Panda, Sahoo & Sahoo, 1995; Reddy, 1994; Sananda Raj & Sreethi, 2000). Achievement scores higher with improvement in the facilities of the school (Varghese, 1995). Classroom environment may affect students' learning attitudes and behavior before it influences their Academic Achievement (Cheng, 1994). Classroom environment is related to Academic Achievement (Ganihar & Shaik, 2004; Oza, 1995; Ramana, 1997). School environment (Salili & Lai, 2003), school type (Govindas & Varghese, 1993; Kingdon, 1996; Sinha, 1980; Veeraraghavan and Samal, 1988), school atmosphere (Ganihar & Shaik, 2004; Merchant, Paulson & Rothlisberg, 2001) also influence academic performance. Crosnoe, Johnson and Elder (2004) observed that school sector (public or private) and size of class are two important component of schools. The good finding of private schools leads to better academic performance and some resources such as computers, which shown to enhance Academic Achievement (Crosnoe, Johnson and Elder 2004; Eamon, 2005). Size of class can increase teacher-student bonding which also have a positive effect on Academic Achievement (Eamon, 2005).

Teacher education (Govinda & Varghese, 1993) and teaching style (Merchant, Paulson & Rothlisberg, 2001) significantly predict Academic Achievement. Instructional programme has its impact on the academic performance of students (Alfassi, 2003; Luyben, Hipworth & Pappas, 2003). Teacher behaviors (Ganguly, 1989; Muifs & Reynolds, 2002) and Teacher effectiveness (Veerraghavan & Bhattacharya, 1989; Wood, Murdock & Cronin, 2002) also influence Academic Achievement Children of literature parents show better Academic Achievement (Borbora, 2001). Parenting practices also affect children's performance (Anuradha & Bharathis, 2001; Brown, Mounts, Lamborn & Steinberg, 1993; Park & Bauer, 2002; Rath & Patnaik, 1999; Rimm, 1995). Students who have low socio-economic status earn lower test scores and more likely to drop out of school (Hochschild, 2003; Eamon, 2005). It is observed that low socio-economic status prevents access to vital resources and creates additional stress

at home (Majoribanks, 1996; Jeynes, 2002; Eamon, 2005). Parental involvement is a potent predictor of school success, regardless of ethnicity, family structure, parental education or gender (Badhri, 1991; Hill & Craft, 2003; Marchent, Paulson & Rothlisberg, 2001; Taj, 1999) ^[21, 22]. When parents are not involved, their children achieve low and show poor home work habits (Baker & Stevenson, 1986; Epstein, 1982, Bogenschneider, 1997). Parental involvement affected achievement more strongly than socio economic status (Van Voorhis, 2003). In other words, parental involvement affected achievement independently of family background measures. However Anderson and Keith (1997), Reynolds and Walberg (1992); Shumow, Vandell and Kang (1996) found that relationship between parents involvement and childrens' Academic Achievement is indirect rather than direct. When parents set high standards, children work harder and thus, their school achievement is found higher (Natriello & McDill 1986). High parental aspirations have been associated with increasing student's interest in education (Majoribanks, 1996). The effect of parental involvement in school has been linked with positive and negative effects on Academic Achievement (McNeal, 2001; Domina, 2005). Maternal Characteristics are another key factor that affects Academic Achievement (Majoribanks, 1996; Baharudin & Tom, 1998; Eamon, 2005). Educated Mothers have children who receive higher test score (Baharudin and Luster, 1998; Eamon, 2005). Student who trust their teachers are more motivated and as a result perform better in school (Crosnoe, Johnson, & Elder Jr., 2004). Non-involvement in extracurricular activities by students is a failure of personal development. Personal development during adolescent year is dependent upon involvement in such activities and efficient learning derives largely from good personal development (DeMoulin2002). Participation in extracurricular activities helps in making academic performance better (Camp, 1990; Finn & RocK, 1997; Gifford & Dean, 1990; Mahoney, Cairns & Framer, 2003; Marsh, 1992; O' Brien & Rollefson, 1995). Student's perception of classroom environment concerning motivating tasks, autonomy support and mastery evaluation were positively associated with motivational and cognitive components of self regulation and science achievement (Sungur, 2009) ^[20]. Modifications to the classroom environment increased academic engagement (Guardino and Fullerton, 2010) ^[6].

High achievers among secondary school chemistry students had more positive perceptions of their classroom environment than the low achievers (Okonkwo 2010) ^[15].

High achievers in secondary school biology had more positive perception of their classroom environment than the low achievers (Okoh2011) ^[14]. Students affiliation and Task orientation in the classrooms were positive and significantly correlated with their motivation in learning English language (Wei & Elias 2011) ^[24]

4. Materials and Methods

4.1 Sampling procedure

Selection of schools

Popular Private Residential Schools were selected from daily newspaper advertisements from different localities of Hyderabad City. The sample consisted of 120 teachers from these schools.

Rural government schools which had got more than 60

percent results in last three consecutive years were selected from the office of commissionerate of examination. A total of 17 schools was listed and selected. The sample consisted of 30 teachers from these schools.

4.2 Tools and Techniques

Questionnaire for the teachers developed by the investigator

5. Results and Discussion

Table 1: Comparison of Frequency Distribution of School Contributing Factors of Private Residential School Children and Rural Government School Children

Dimension	HPS	Categories of scores obtained									
		0-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-50	
1. Teacher’s qualification	12	Private residential	-	-	120 (100)	-	-	-	-	-	-
		Rural Government	-	21 (70)	9 (30)	-	-	-	-	-	-
2. Physical set up	57	Private residential	-	-	-	-	-	-	20 (16.67)	100 (83.3)	
		Rural Government	-	-	-	-	4 (13.3)	7 (23.4)	7 (23.4)	10 (33.3)	2 (6.6)
3. Class Room Organisation	27	Private residential	-	-	-	-	80 (66.67)	40 (33.33)	-	-	-
		Rural Government	-	-	2 (6.6)	11 (36.6)	12 (40)	5 (16.6)	-	-	-
4. Curriculum & Subject matter	38	Private residential	-	-	-	-	-	10 (8.34)	100 (83.32)	10 (8.34)	-
		Rural Government	-	-	-	2 (6.6)	8 (26.6)	12 (10)	8 (26.6)	-	-
5. Method of teaching	32	Private residential	-	-	-	-	4 (3.34)	40 (33.34)	76 (63.32)	-	-
		Rural Government	-	-	-	6 (20)	11 (36.6)	6 (20)	7 (23.3)	-	-
6. Co-Curricular activities	28	Private residential	-	-	-	-	118 (98.33)	2 (1.67)	-	-	-
		Rural Government	-	6 (20)	18 (60)	6 (20)	-	-	-	-	-
7. Characteristics of teacher	39	Private residential	-	-	-	-	1 (0.83)	48 (40.00)	68 (56.67)	3 (2.50)	-
		Rural Government	-	-	1 (3.3)	4 (13.3)	3 (10)	15 (50)	6 (20)	1 (3.3)	-
8. Teacher-student interaction	41	Private residential	-	-	-	-	-	20 (16.67)	20 (16.67)	80 (66.66)	-
		Rural Government	-	-	-	-	10 (33.3)	10 (33.3)	5 (16.6)	5 (16.6)	-

HPS: Highest possible Score. Percentages in Parenthesis

Table 2

Dimension	HPS	Categories of scores obtained		
		Below average	average	high
1. Teacher’s qualification	12	Private residential	-	100
		Rural Government	-	30
2. Physical set up	57	Private residential	-	83
		Rural Government	-	7
3. Class Room Organisation	27	Private residential	-	100
		Rural Government	-	57
4. Curriculum & Subject matter	38	Private residential	-	100
		Rural Government	-	67
5. Method of teaching	32	Private residential	-	100
		Rural Government	-	80
6. Co-Curricular activities	28	Private residential	-	100
		Rural Government	20	-
7. Characteristics of teacher	39	Private residential	-	59
		Rural Government	3	24
8. Teacher-student interaction	41	Private residential	-	83
		Rural Government	-	33

The above tables shows that cent percent Private Residential School teachers perceived high contribution of their qualification for Academic Achievement of students where as in Rural Government Schools 70 percent teachers perceived

to study the contribution of school factors.

4.3 Statistical procedure used for the data analysis

Percentages, Arithmetic Mean, Standard Deviation, Two Sample Z Test, correlation, Multiple Linear Regression were used for the analysis of the data.

average contribution of their qualification towards Academic Achievement of students. Only 30 percent of teachers perceived high contribution of teacher’s qualification towards Academic Achievement.

Coming to the physical set up, in private residential schools 83 percent teachers’ perceived high contribution of good physical set up for high Academic Achievement. Only 17 percent perceived average contribution of physical set up for Academic Achievement. Where as in Rural Government Schools 93 percent teacher’s perceived average contribution of physical set up for Academic Achievement. This may be due to lack of physical amenities in government sectors. Rural Government School teachers perceived even in average physical set up students achieved high.

All the teachers of Private Residential Schools perceived high contribution of other school factors of classroom organization, curriculum and subject matter, where as in Rural Government Schools classroom organization contributed highly only for 57 percent and average for 43 percent. Curriculum and subject matter high for 67 percent and average for 33 percent. According to all the teachers of private residential schools and for 80 percent of Rural Government School teachers contribution of Method of Teaching was high for Academic Achievement of Children. All the teachers perceived high contribution of Co Curricular activities for higher achievement in private residential schools

where as 80 percent teachers of Rural Government Schools perceived average contribution of Co-Curricular activities. According to the teachers of private residential schools, Characteristics of teacher contributed 59 percent for high achievement. In Rural Government Schools, 73 percent teacher’s perceived average contribution of teacher’s characteristics for Academic Achievement and only 24 percent perceived high contribution.

88 percent teachers in Private Residential Schools perceived high contribution of Teacher Student Interaction for Academic Achievement. Where as in Rural Government schools only 33 percent Teachers perceived high contribution of Teacher Student interaction.

It is evident from the above results that contribution of school factors was high for private residential schools and average in Rural Government School children. Even though Method of Teaching and Curriculum and Subject Matter was high in rural government schools it is comparatively less with private residential schools. Good Teaching methods and management of curriculum and subject matter helped in high achievement in Rural Government schools even though contribution of other school factors was average.

Table 3: Comparison of Correlation between School Factors and Academic Achievement of Private Residential School Children and Rural Government School Children

Dimension		English	Mathematics	Science
1. Teacher’s qualification	Private residential	0.0325	0.2230*	0.0453
	Rural Government	-0.1918	-0.0186	-0.0891
2. Physical set up	Private residential	0.2430	0.0078	0.2461*
	Rural Government	0.0496	0.0361	-0.0565
3. Class Room Organization	Private residential	0.0340	0.2054*	0.1212
	Rural Government	0.0483	-0.0096	0.0228
4. Curriculum & Subject matter	Private residential	0.2107*	0.1694	0.3898**
	Rural Government	0.0283	0.1468	0.1672
5. Method of teaching	Private residential	0.2678*	-0.0081	0.0564
	Rural Government	-0.2187	-0.0917	-0.0438
6. Co-Curricular activities	Private residential	0.1163	0.0493	0.0913
	Rural Government	-0.1158	0.1462	0.1337
7. Characteristics of teacher	Private residential	-0.1851	0.0198	0.1536
	Rural Government	-0.1619	-0.0036	0.1807
8. Teacher-student interaction	Private residential	0.1056	0.2962	-0.0341
	Rural Government	0.0645	-0.0182	-0.0156

*P<0.05 **p<0.01

It is clear from the above table that there was no significant correlation between school contributing factors and Academic Achievement for Rural Government School Children.

Coming to the Private Residential School Children achievement in English was significantly positively correlated with Curriculum and subject matter, Method of Teaching. Effective management of curriculum and quality teaching methods resulted in high Academic Achievement in English. Achievement in Mathematics was significantly positively

correlated with teacher’s qualification and classroom organization. Teachers with high qualification and good classroom management skills, helped in high achievement in mathematics. Curriculum and Subject matter, physical set up was significantly positively correlated with achievement in Science. There was highly significant positive correlation between Curriculum and subject Matter and achievement in science. Good physical set up was also contributed for high Academic Achievement.

Table 4: Comparison Of Relative Contribution of Independent Variable With Respect to Performance in Dependent Variables of Private Residential School Children and Rural Government School Children

school variable		Achievement in English T- value	r ²	Achievement in Mathematics T- value	r ²	Achievement in Science T- value	r ²
Dimension							
1. Teacher’s qualification	Private residential	0.1247	.0056	2.0816*	0.0529	-	-
	Rural Government	-	-	-	-	-	-
2. Physical set up	Private residential	2.2190*	0.0562	.0271	0.006	1.9887*	0.069
	Rural Government	-	-	-	-	-	--
3. Class Room Organisation	Private residential	0.6366	0.0058	2.0244*	0.0529	1.9581*	0.056

	Rural Government	-	-	-	-	-	-
4. Curriculum & Subject matter	Private residential	2.1386*	0.0628	2.0816*	0.0529	4.4002**	0.2049
	Rural Government	-	-	-	-	-	-
5. Method of teaching	Private residential	1.9880*	0.0514	2.0066*	0.0623	0.6766	0.0182
	Rural Government	-2.4355**	0.04786	-1.006	0.0084	-0.4766	0.0019
6. Co-Curricular activities	Private residential	-	-	-	-	-	-
	Rural Government	-	-	-	-	-	-
7. Characteristics of teacher	Private residential	-	-	-	-	-	-
	Rural Government	-	-	-	-	-	-
8. Teacher-student interaction	Private residential	1.5238	0.0312	2.0982*	0.0628	0.2376	0.0160
	Rural Government	-	-	-	-	-	-

It is clear from the above table, in private residential schools physical set up, curriculum and subject matter and method of teaching had significant positive contribution towards achievement in English. Teacher’s qualification, Method of Teaching, curriculum and subject matter and classroom organization, Teacher student interaction had significant positive contribution towards Achievement in Mathematics. Curriculum and subject matter, class room organization, physical set up had significant positive contributed towards Science achievement. For rural government school children only method of teaching had significantly high negative contribution towards English achievement.

6. Conclusion

It can be concluded from the above discussion that Private Residential School teachers perceived high contribution of the school factors. Rural Government Schools teachers perceived average contribution except method of teaching and curriculum and subject matter, even which were comparatively less than Private Residential Schools. There was no significant positive correlation between School Contributing factors and Academic Achievement of Rural Government School Children. In Private Residential School children, there was significant positive correlation between achievement in English and Curriculum and Subject matter, Method of Teaching. Teacher’s qualification and classroom organization was significantly contributed for achievement in Mathematics. Achievement in Science was positively correlated with physical set up and Curriculum and subject matter.

7. Implications of the Study

The study reveals that poor contribution of school factors for educational achievement in rural government schools. In spite of poor infrastructure rural government school children are achieving high. So it is important for the policy makers to strengthen school factors in rural government schools in order to improve the education system in rural areas.

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