A Study of Factors Effecting Academic Achievement of Prospective Teachers

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Abstract

The paper tried to clarify factors influencing academic achievement of prospective teachers studying in different teacher education programs. The government has focused on the improvement in the quality of education especially after the quantitative expansion of enrolment rates at all levels of education. As one of criteria of the quality of education, prospective teachers’ academic achievement was investigated in the paper, because academic achievement is most often cited as a institutional effectiveness indicator by administrators, teachers, students and their parents (Gaziel, 1996). The study was carried out on a sample of 200 students of 9 departments of Institute of Education and Research, University of the Punjab, Pakistan. The sample was randomly selected and 22 students of 4th semester from each department were taken. Cumulative Grade Point Average (CGPA) of students was also taken. Information was collected through questionnaire. The result of the research study showed that parental involvement, teacher teaching style, socioeconomic status, peer pressure, and motivation were effecting student’s achievement.

Key words: Factors, Effect, Academic, Achievement.

Introduction

Education has been regarded as a key factor for national development by the Pakistani government. By their strong initiative, Teacher education has been prioritized. It is considered necessary because teachers with strong pedagogic skills can show better results at all levels of education in Pakistan. Therefore the preparation of prospective teachers is crucial as the country’s future is in their hands. Identifying factors that influence students’ learning and thus achievement continues to be an important objective of educators at all levels (Carrotte, 1999).

Various factors affect student achievement at higher education level like personal confidence and a feeling of competence in learning; hopeful but realistic projection into the future occupational roles and social roles; emotional stability; temperamental tendency towards introversion; relative independence from teachers and a tacit acceptance of the of the curricular and work demands arising within the structure of tuition (Wankowski, 1991). Self-efficacy has been identified as a positive predictor of academic performance (Lee & Bobko, 1994).
There are many factors that influence the performance of students but for this study, students’ academic achievement was analyzed in terms of five kinds of factors: parental involvement, peer pressure, teachers’ teaching style, socioeconomic status, and motivation.

These factors were selected based on review of the previous research. Sakigawa, (2003) analyzed students’ academic achievement in terms of three kinds of factors, family factors, individual factors and school factors. The result showed that these three factors have a direct effect on students’ self-reporting of academic achievement. The strongest factor is students’ proficiency in Vietnamese, and the next is parents’ interest in child’s study followed by the existence of close friends in school. For this research study following factors were analyzed:

- Parents’ Involvement and support
- Peer Pressure
- Teacher Teaching Style
- Scio-economic Status
- Motivation

**Parents’ Involvement and Support**

Parents are child’s first teacher and the home is the first classroom. No one disputes the importance of parental support and community collaboration in a person’s growth and development. Parental involvement refers to the support given to the students by the parents. Involvement of parent is influential factor. Over 30 years of research shows that one of the most effective ways to increase student achievement is for parents to be actively involved in the education of their children. Martinez (2004) cited a 2002 National Education Service study that indicates the following:

- When parents are involved in students’ education, those students generally have high grades and test scores, better attendance, and more consistently complete homework.
- Students whose parents are involved in their lives have higher education rates and greater enrollment rates in postsecondary education.

Martinez (2004) cited the work of Joyce Epstein of the Johns Hopkins University, who has divided school parent involvement programs into six broad categories:

- Parenting, in which schools help families with their parenting skills by providing information on children’s developmental stages and offering advice on learning-friendly home environments;
- Communicating, or working to educate families about their child’s progress and school services and providing opportunities for parents to communicate with the school;
- Volunteering, which ranges from offering opportunities for parents to visit their child’s school to finding ways to recruit and train them to work in the school or classroom;
- Learning at home, in which schools and educators share ideas to promote at-home learning through high expectations and strategies so parents can monitor and help with homework.
- Decision-making, in which schools include families as partners in school organizations, advisory panels, and similar committees.
- Community collaboration, a two-way outreach strategy in which community or business groups are involved in education and schools encourage family participation in the community.
Effective parent involvement comes when a true partnership exists between schools and families. Creating that partnership, especially around academics, is what works for student achievement.

**Peer Pressure**

Another factor which is distinctive to higher education is peer assisted learning that encourages students of higher education to take the responsibility for the learning process in terms of academic achievement and social development (Packham & Miller, 2000). A good peer group is the necessity to attain better marks. If the peer group is academically bright, the student would also work harder to achieve good grades in order to maintain the value. The peer if have more interest in studies can also compel the student to do more effort and increase academic achievement.

**Teachers’ teaching style**

Teaching skills of the teacher educator can also affect students’ rate of achievement. As an understanding, friendly environment between a teacher and student compel the learner to put more effort for his own pleasure rather than a strict disciplined one. The educational institute has the key importance in this regard. Social climate of the institute indicated by characteristics such as the teachers’ inclination towards improving educational achievement, and their expectations for pupil achievement are crucial for student achievement (Brookover & Lezotte, 1979). Teaching directly affects attitudes toward a particular school subject (Papanastasiou, 2002) and achievement is directly related to attitude. Conducive environment and other facilities provided by the institute affect the student learning positively (Schneider, 2002). Along with physical facilities, guidance services provided by the institute play a significant role in achievement.

Guidance services have significantly positive effect on student’s study attitudes, study habits and academic achievement (Chaudhary, 2006).

**Socioeconomic Status**

Socioeconomic status-based on income, occupation, education, and social prestige-can profoundly influence the learner’s attitudes toward school, background knowledge, school readiness, and academic achievement. Hoy and Miskel (2001), while researching on “Academic Achievement” they stressed the correlation between SES and Student Achievement:

No matter how they are measured differences in socioeconomic background of the family lead to significant differences in student achievement. A reasonable interpretation is that measures of socioeconomic status are proxies for the quality of the learning environment in the home— nutrition, physical surroundings, parental attitudes, education, and so forth. (p.299)

It is long noted that the relationship between students and their universities is one significant predictor of social and academic development. Apple (1980) described that the managerial and organizational structure of the university unfairly treats students based on their background (Apple, 1980). A brief summary of student university interaction and its long lasting effect on students’ sense of worth and identity has been given by Ballentine (1997,68) as follows.
In colleges and universities students spend more in class and schoolrelated activities. Teachers and the university campus are the important source of their identity. Students in addition to a formal class, learn by observing their instructors, peers, and university administrators. They observe the ratio of males to females, rich and poor students from diverse culture, and the authority structure in the educational hierarchy.

Research indicates that students from lower socio-economic background in terms of parents’ occupational status faced a higher risk of low achievement. Home educational background and parents’ educational attainment greatly influence the quality of education for their children. Student achievement was found to be directly proportional to the education of their parents (Bos & Kuiper, 1999, Rainey & Murova, 2004). The cultural factors of the home were another family characteristic that proved significant in predicting low achievement (Linnakyl et. al, 2004).

Students’ motivation

Students’ motivation and academic achievement are directly affected by their relationships with their teachers and by the kind of statements they receive from them. Students who have positive relationships with their teachers and receive more value comments than expectancy comments show higher levels of motivation and academic achievement (Urdan&Schoenfelder, 2006). One instructional variable, verbal praise, has often been identified as an important mediator in the enhancement of students’ motivation in the classroom (Bergin, 1999; Mueller & Dweck, 1998; Thompson, 1997). On the other hand, Good (1987) reported that older students ignored the praise that they perceived as invalid and interpreted praise given for easy tasks as an indication that the teacher had low expectations of them.

Referring to these previous researches and in order to have a comprehensive understanding of factors on students’ academic achievement, Figure 1 was created, which shows a framework of multiple factors (parental involvement, peer pressure, teachers’ teaching style, socioeconomic status, and motivation) with a direct impact upon students’ academic achievement studied in this research.

Figure 1: Framework of the selected factors with a direct impact upon students’ academic achievement

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The students at higher education level are mature enough to express about the factors that are influential in their academic achievement. The current study aims at exploring the factors and the extent to which they count for the achievement of students at higher education level (teacher education level).

**Objectives of the Study:**

- To find out the effect of factors on different departments of Institute of Education and Research.
- To find out the effect of parental involvement, peer pressure, and teacher teaching style on student academic achievement.
- To find out the effect of socioeconomic status and motivation status on student academic achievement.

**Purpose of the Study**

The major purpose of the study was to examine the effect of different factors (independent variable) on the academic achievement of the prospective students (dependent variable).

**Procedure And Methodology**

The study was descriptive in nature. A sample of 200 students’ was randomly selected from the nine master level programs of Institute of Education and Research, University of the Punjab, Lahore, Pakistan. Two hundred students were taken because the number of samples may need to be at least 200 in using regression analysis. (Helena and Sue, 1987) The names of the departments of Institute of Education and Research are:

- Master of Secondary Education
- Master of Elementary Education
- Master of Islamic Education
- Master of Business Education
- Master of Technology Education
- Master of Early childhood Education
- Master of Science Education
- Master of English Language Teaching and Linguistics
- Master of Educational Research and Assessment

**Research Instrument**

Questionnaire was used to collect the data which was consisted of 25 statements on five point Likert type scale. The questionnaire was based on five categories (factors) i.e. Parents’ involvement, teachers’ teaching style, peer pressure, socio-economic status and motivation. The data was collected from the students of Institute of Education and Research, Punjab University.

**Analysis and Interpretation Of Data**

All computations were made by utilizing SPSS-15. Data was analyzed through Analysis of variance (ANOVA) and linear regression statistics to test the research questions.

**Results of The Study**

The result of the research study showed that teacher teaching style was the only factor (according to this study) that was significantly effecting students’ achievement among the other factors i.e. parental involvement, socioeconomic status, peer pressure, and motivation. The detailed results with explanation are given below

Table 1: ANOVA between Parental Involvement and departments of Institute of Education and Research.

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>111.372</td>
<td>12</td>
<td>9.281</td>
<td>1.407</td>
<td>.166</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1233.623</td>
<td>187</td>
<td>6.597</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1344.995</td>
<td>199</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The result of ANOVA test shows that nine groups were not significant at level of Significance=.05. F (2,199) = 1.407, p=.166. Therefore it is concluded that there is no significant effect of parental involvement on the students of different departments at Institute of Education and Research.

Table 2: ANOVA between Peer pressure and departments of Institute of Education and Research.

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>59.321</td>
<td>12</td>
<td>4.943</td>
<td>.719</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1285.674</td>
<td>187</td>
<td>6.875</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1344.995</td>
<td>199</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result of ANOVA test shows that nine groups were not significant at level of Significance=.05. F (2, 199) = .719, p=.732. Therefore it is concluded that there is no significant effect of peer Pressure on the students of different departments at Institute of Education and Research.

Table 3: ANOVA between Teacher Teaching Style and departments of Institute of Education and Research

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>88.338</td>
<td>13</td>
<td>6.795</td>
<td>1.006</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1256.657</td>
<td>186</td>
<td>6.756</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1344.995</td>
<td>199</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result of ANOVA test shows that nine groups were not significant at level of significance=.05. F (2, 199) = 1.006, p=.447. Therefore it is concluded that there is no significant effect of parental involvement on the students of different departments at Institute of Education and Research.

Table 4: ANOVA between Parental Involvement and departments of Institute of Education and Research

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>135.493</td>
<td>16</td>
<td>8.468</td>
<td>1.281</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1209.502</td>
<td>183</td>
<td>6.609</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1344.995</td>
<td>199</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result of F test shows that nine groups were not significant at level of significance=.05. F (2, 199) = 1.281, p=.231. Therefore it is concluded that there is no significant effect of parental involvement on the students of different departments at Institute of Education and Research.

Table 5: ANOVA between Parental Involvement and departments of Institute of Education and Research

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>93.906</td>
<td>10</td>
<td>9.391</td>
<td>1.419</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1251.089</td>
<td>189</td>
<td>6.620</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1344.995</td>
<td>199</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result of F test shows that nine groups were not significant at level of significance=.05. F (2, 199) = 1.419, p=.175. Therefore it is concluded that there is no significant effect of parental involvement on the students of different departments at Institute of Education and Research.
Regression Tables

Table 6: Effect of Parental Involvement on Student Academic Achievement

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model R square</th>
<th>Unstandardized $B$</th>
<th>t-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental involvement</td>
<td>.007</td>
<td>.012</td>
<td>1.216</td>
<td>.225</td>
</tr>
</tbody>
</table>

Table 7: Effect of Peer Pressure on Student Academic Achievement

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model R square</th>
<th>Unstandardized $B$</th>
<th>t-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer pressure</td>
<td>.004</td>
<td>-.010</td>
<td>-.900</td>
<td>.369</td>
</tr>
</tbody>
</table>

Table 8: Effect of Teacher Teaching Style on Student Academic Achievement

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model R square</th>
<th>Unstandardized $B$</th>
<th>t-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher teaching</td>
<td>.031</td>
<td>.024</td>
<td>2.526</td>
<td>.012</td>
</tr>
</tbody>
</table>

Table 9: Effect of Socioeconomic Status on Student Academic Achievement

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model R square</th>
<th>Unstandardized $B$</th>
<th>t-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socioeconomic Status</td>
<td>.005</td>
<td>-.008</td>
<td>-.982</td>
<td>.328</td>
</tr>
</tbody>
</table>

Table 10: Effect of Motivation on Student Academic Achievement

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model R square</th>
<th>Unstandardized $B$</th>
<th>t-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>.000</td>
<td>.002</td>
<td>.199</td>
<td>.843</td>
</tr>
</tbody>
</table>
Conclusion and Discussion

The literature has established that many factors may influence achievement of students at different levels of education. Parental involvement in their children’s education means providing an environment that helps to develop a child’s intellectual and creative talent, supporting homework and communicating with the child about classroom activities but unfortunately at university level parents were not taking interest in students’ activities. A good peer group is necessary to attain good results. If the peer group is academically bright, the learner would also work harder to achieve good grades in order to increase his/her performance. Teaching skills of the teacher can also affect child’s rate of achievement. As an understanding, friendly environment between a teacher and student compel the child to put more effort for his own pleasure rather than a strict disciplined one.

A good teaching environment and a healthy relation with the teacher, increases the capability of student. Therefore teaching style would be modern and versatile to make children work to their best of capabilities. The way the teacher deals with a student develops the interest in a specific subject and this interest directly affects grades. The present study sought to examine the effect of factors on student academic achievement of Institute of Education and Research. It was concluded that there was no significant effect of parental involvement, peer pressure, socioeconomic status and motivation on student academic achievement except the teachers’ teaching style. Moreover, there was no significant effect of factors on different departments of Institute of Education and Research.
References


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