The Relationship between Student-Teachers Interaction and Academic Achievement of Trainee Teachers in Dilla College of Teacher Education

By Bereket Merkine, Yohannes Bisa & Aklilu Ayele

Wolaita Sodo University

Abstract- This study was designed to investigate the relationship between selected psychosocial variables and academic achievement. Emphasis was made on establishing the relationship between student-teachers interaction and academic performance of college students at Dilla College of teachers' education. The study employed the use of correlation design to establish the nature of the relationships. The validity and reliability of research instruments was established and data was collected from 246 respondents selected from all streams in the college using simple random sampling method. To analyze the data, the analysis of variance (ANOVA), T-Test, Multiple regressions (MR) and Pearson product moment correlation statistical tools were used with the aim of establishing the difference and relationship between student-teachers interaction and academic performance of college trainee teachers at Dilla College of Teachers’ Education. Findings revealed that there was significant difference in academic performance on students of different age, no significant difference in academic achievement of students from different parental occupation level, no significant difference in parental education level and place of residence.

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I. Introduction

Learning in a classroom depends on a great deal of the structure and patterns of inter-personal relationships particularly pupil-pupil relationship, existing at a given point of time within the learning group. The transition from high school to tertiary institution of learning is a major life change and time of facing many psycho-social problems like peer pressure, different interpersonal relationship living far from parents and facing new environment for many youth. Attending education in tertiary institution offers students with learning experiences and opportunities for psychosocial development (Friedlander, Reid, Shupak, & Cribbie, 2007; Tao, Dong, Pratt, Hunsberger, & Pancer, 2000). However, entering the institution of higher learning may be a source of strain and an acute stressor (Friedlander et al., 2007). At the colleges and universities, academic demands increase and new social relations are established. However, students are often not sure of their abilities to cope with these demands (Dwyer & Cummings, 2001). According to research conducted by Jill Carlivati (2001) college performance correlates with quality of one’s interpersonal relationships and additional developmental outcomes. Academic failure, as assessed by the frequency of problems with peers and difficulty with school work, has a great impact on relationships in the home, as students who have had a bad day at school are more likely to display aversive behavior towards their parents that evening (Repetti, 1996)

Education competence in the present world is interwoven with the progress of every society. According to the modern concept of education, cited in Deepa and Chamendeswari (2014) best adjustment of school climate, parental involvement, peer interaction and student teacher interaction is the ultimate goal of education.

Student’s characteristics like motivation, learning styles and study habit, gender, and learning strategies played a very important role in academic achievement as cited in (Osher et.al, 2008). Abe (1995) noted that it is possible to perceive the totalism of human as being guided and ruled by psychological and social variables. Onocha (1985) also avers that the modern man as a person has his educational aspiration and accomplishments projected by the psycho-social variables in the environment, the positions of these two sets of variables are unique and important and may be appreciated when it is realized that the variables are necessary for the understanding of human beings, their overt and covert behaviors', potentialities and
performances in the three areas of educational domains (cognitive, affective and psychomotor).

All psycho-social factors are important variables that affect students’ academic achievement and need investigation so as to bring students effectiveness in college of education and reach country development as planned. But the researcher would like to investigate the relationship between selected psycho-social factor that is student –teacher interaction and academic achievement of trainee teachers in Dilla College of teacher education by taking psycho-social factors as independent variable and academic achievement as dependant variable.

II. Statement of the Problem

Student success is at the heart of the educational enterprise. College success helps students to meet long-term personal and career goals and provides a range of monetary, psychosocial, and physical benefits (Baum & Ma, 2007). The research studies revealed that various psycho-social factors are responsible for scholastic failure of students, such as low socio-economic background, student’s psycho-social factors, cognitive abilities, school related factors, environment of the home, or the support given by the parents and other family members (Khan & Malik, 1999; Fan, 2001; Gonzalez- Pienda, Nunez, Gonzalez-Pumariaga, Alvarez, Roces and Garcia, 2002).

The alarming rate of low academic self-efficacy and eventual low academic achievement constitutes a great concern to parents, teachers, examination bodies, counselors, psychologists and colleges. Indeed, it represents a great wastage on the parts of students, parents and the government.

Parents, adult family members, teachers and peer groups contribute significantly to various components of personality of the students particularly in improving his/her academic performance Considine and Zappala (2002). The data from Dilla College of teacher education registrar show that; most students academic achievement are very low which is below average grade of the college. The researcher would therefore like to investigate the relationship between selected psycho-social variable and academic performance of College trainee teachers at Dilla College of teacher education with specific reference to teacher-student interaction on academic success of trainee teachers.

a. Research Hypotheses

The following hypotheses were planned for the purpose of this research which is investigation of the relationship between selected psycho-social factors and trainee teachers’ academic achievement in college of teachers’ education.

1. There is significant difference in academic achievement between male and female trainees.
2. There is significant difference in academic achievement between male and female.
3. There is a positive relationship between socio-economic status (parental education, place of residence and parental occupation) and academic achievement of trainee teachers in college of teacher education.

b. Research Questions

This study will answer the following research questions.

1. Is there significant relationship between student-teacher interaction and academic achievement of trainee teachers in college?
2. Is there statistical difference in academic achievement between male and female?
3. What is the relationship between parents’ social economic status and academic performance of college students?

III. Research Methodology

The intention of this research was to assess the relationship between selected psycho-social variables and academic achievement among college students. The gender differences in academic achievement at college level, the level of student-teachers interaction and its relation with academic performance were part of the objectives. In order to achieve this research objective, the researcher decided to obtain the basic information from college students. Accordingly, the planned study area (geographical location), study design, study population, sample size, sampling techniques, methods of data collection, data quality assurance (validity and reliability), methods of data processing and analysis of results are explained in this chapter.
IV. **Study Area**

The study was conducted at Dilla College of Teacher Education (DCTE). DCTE is located in Dilla city which is about 365 kilometers to the south east of the capital city of Addis Ababa and about 90 kilometers to the west of the capital city of Southern Nation Nationalities and Peoples Region of Ethiopia (SNNPR). DCTE was first established in 1994 as Dilla Agricultural, Vocational and Technical College (DATVC), offering diploma level education in Agricultural fields (DCTE, 2013). In 2005 E.C, the institution was renamed as Dilla College of Teacher Education (DCTE).

V. **Research Design**

The study was conducted by using the correlation research design as it was intended to investigate the relationship between student-teachers interaction and academic achievement. According to Fraenkel and Wallen (1996), correlation research describes an existing relationship and differences between different dependant and independent variables. The study was conducted in line with quantitative approach for the reason that it is based on variables measured with numbers and the results were analyzed with statistical procedures.

VI. **Population of the Study**

The target population of the study was all 3rd year Dilla College of Teachers Education students. The number of 3rd year college students was 681, where 553 were males and 128 females. The respondents in this study were college students as it was about assessing the relationship between selected psycho-social factors and academic performance of college students at Dilla College of teachers’ education.

VII. **Sample Size and Sampling Technique**

According to Anthony and Picciano(2011, p121) various sampling techniques can be used depending on the type of research to be conducted. The selection of the sample for this study made as follows: First, by using purposive sampling technique, 3rd year students taken for the reason it was intended to investigate the relationship between student-teacher interaction and academic achievement based on Cumulative Grade-Point-Averages (CGPAs) in last five semesters. Following this, they were further stratified based on stream and gender (sex) the reason that the number of female trainees in the college significantly lesser than that of male trainees in number and the number of students in each streams were not equal. The sample of the study was 248 3rd year students that the researcher selected out of 681 students based on Morgan and Krejcie’s 1970 sampling determination table. The sampling determination table developed by Morgan and Krejcie is suitable to select sample from population based on its clearness which many researchers were used and confirmed its validity (Kyoshaba, 2009). In the process, the 681(553 male and 128 are female) third year students in the college and were divided into four streams. The 248 respondents were selected from all streams in the college of education by using the sampling table. Finally as randomization is effective in creating equivalent representative groups that are essentially the same on all relevant variables (Amin, 2005), the sample was done by using simple random sampling techniques which is procedure of lottery method to select participants from each stream so as to avoid bias and give equal chance for whole 3rd year college students (see table 1).
Table 1: Sampling Frame for Sampling Techniques

<table>
<thead>
<tr>
<th>Streams</th>
<th>Dep’t</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>F</td>
<td></td>
<td>Sample</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>M</td>
</tr>
<tr>
<td>Social Science</td>
<td>Geography</td>
<td>36(13)</td>
<td>3(1)</td>
<td>39(14)</td>
<td>218</td>
</tr>
<tr>
<td></td>
<td>History</td>
<td>36(13)</td>
<td>7(3)</td>
<td>43(16)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Civics</td>
<td>77(28)</td>
<td>16(6)</td>
<td>93(34)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social studies</td>
<td>27(10)</td>
<td>16(6)</td>
<td>43(16)</td>
<td></td>
</tr>
<tr>
<td>Math’s and Natural Science</td>
<td>Math’s</td>
<td>62(23)</td>
<td>8(3)</td>
<td>70(26)</td>
<td>232</td>
</tr>
<tr>
<td></td>
<td>Biology</td>
<td>46(17)</td>
<td>5(2)</td>
<td>51(19)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chemistry</td>
<td>40(15)</td>
<td>4(1)</td>
<td>44(16)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physics</td>
<td>28(10)</td>
<td>0</td>
<td>28(10)</td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>Math’s and Natural Science cluster</td>
<td>29(10)</td>
<td>10(4)</td>
<td>39(14)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>69(25)</td>
<td>12(4)</td>
<td>81(29)</td>
<td>188</td>
</tr>
<tr>
<td></td>
<td>Amharic</td>
<td>28(10)</td>
<td>15(5)</td>
<td>43(15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Language</td>
<td>39(14)</td>
<td>25(9)</td>
<td>64(23)</td>
<td></td>
</tr>
<tr>
<td>Aesthetics</td>
<td>HPE</td>
<td>36(13)</td>
<td>7(3)</td>
<td>43(16)</td>
<td>43</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>553(201)</td>
<td>128(47)</td>
<td>681(248)</td>
<td>681</td>
</tr>
</tbody>
</table>

NB. The number of students under brackets indicates the sample from each department

**VIII. Data Collection Instruments**

The researcher used questionnaire as the population of the study was literate and large. To gather enough information to this study the researcher used Questionnaire containing two sets of items. The first set consists of questions demanded respondents background characteristics (i.e., demographic variables). It includes age, sex, cumulative grade point average (CGPA), department, family structure, parents or guardians Residence, parental educational level, and parental occupation. The remaining one sets of item is student-teachers relation scale (STRS).

**IX. Student-Teachers Relation Scale (STRS)**

Items desired to measure teacher-student interaction (STRS) are 28 in number which is developed by Robert C. Piñata (1999). It is useful for the purpose of this research which dealt with the relationship between teacher-student interaction and students’ academic achievement.

**Pilot Test**

In order to assure data quality, high emphasis were given to minimize errors using the following strategies: First, the instruments were checked by three college language lecturers and the university advisors of the study to judge the items on their appropriateness of content and the language being used and to determine all the possible areas that needs modification so as to achieve the objectives of the study. Accordingly, one pre designed item was omitted from the questionnaire based on its reliability level to insure the content validity of the instruments as supported by Fraenkel and Warren (2000). Secondly, the questionnaire was pretested (pilot test) to insure its reliability. Responses to the instrument include clarity of directions; clarity of questions; relevancy of the question as an important aspect of a major issue; and narrowness or constraint of response. Accordingly, after the pilot test was conducted, some contents of the questionnaires were modified based on its relevance’s to gather the information. Finally, the pilot test data were reviewed checked and relevance of the questions in the questionnaire was evaluated for completeness. Subsequent correction and modification was done according to the feedback from the pilot test. Finally, the pretested data results were analyzed by using SPSS version 16 to see Cronbach’s Alpha results for its reliability. Accordingly, the results showed that Cronbach’s alpha = 0.845 for student-teachers interaction, which indicates a high level of internal consistency (reliability) for the items to be used as supported by Moskal, B.M., and Leydens, J.A. (2000) (see table 2 for reliability statistics and see appendix D for item statistics).
X. Data Analysis Technique

The data gathered through, questionnaire was processed through concurrent flows of activity of the quantitative data analysis system. Data from questionnaires was compiled, sorted, edited, classified and coded into a coding sheet and analyzed using a computerized data analysis package known as Statistical Package for Social Science 16.0 by using revert scale. The researcher used Pearson product-moment correlation coefficient (r) to compute the relationship among student-teacher interaction and academic performance. The researcher also used T-test to find out how academic performance varied with gender, place of residence, parental education, in terms of level of exposure to see the mean difference in the level of their teacher interaction. One way Analysis of Variance (ANOVA) was used to check academic achievement differences in terms of age and parental occupation. Standard Multiple Regression (MR) was also used to predict the academic performance of the students based on selected variables taken as psychosocial variables and the prediction level of the independent variable for the dependant variable.

XI. Results

a) Demographic characteristics of the respondents

As per section A of the questionnaire the demographic characteristics (i.e., expressed by frequencies and percentages) of the study sample are displayed in Table 3 below.
As it can be seen from the Table above, samples of female and male students, the majority of the participants reported that their parents had no formal education and/or had elementary/junior secondary educational level, and majority of the students were reported that their parents were not government employer. According to their report majority of the students’ family are categorized under other job (such as farmer, merchant and etc). The majority of participants reported that they were from intact families (i.e., residing with both biological parents). As the table above shows majority of the students or respondents family are reside in rural areas. And when we come to mothers’ occupation as majority of the students report shows that their mothers’ occupation was house wife and majority of the students were aged between 19-22 years.

b) Respondents Academic Performance in Terms of Gender, Place of Residence and Parental Education

The study was interested in whether academic performance varied in terms of demographic characteristics. Table 4 shows the mean difference between gender, place of residence, parental occupation and academic performance as determined using the independent sample t-test results.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>199</td>
<td>2.82</td>
<td>0.48</td>
<td>1.875</td>
<td>.062</td>
</tr>
<tr>
<td>Female</td>
<td>47</td>
<td>2.67</td>
<td>0.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place of residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>125</td>
<td>2.84</td>
<td>0.512</td>
<td>1.795</td>
<td>0.074</td>
</tr>
<tr>
<td>Urban</td>
<td>121</td>
<td>2.73</td>
<td>0.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fathers’ education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>74</td>
<td>2.82</td>
<td>.486</td>
<td>0.694</td>
<td>0.489</td>
</tr>
<tr>
<td>Literate</td>
<td>172</td>
<td>2.77</td>
<td>.480</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mothers’ education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>113</td>
<td>2.76</td>
<td>.492</td>
<td>0.716</td>
<td>0.475</td>
</tr>
<tr>
<td>Literate</td>
<td>133</td>
<td>2.81</td>
<td>.473</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Statistically not significant

An independent sample t-test was conducted to ascertain whether a statistically significant difference exists between academic performance and selected demographic characteristics of respondents which includes gender, place of residence and parental education.

As presented in Table-4, there is no statistically significant difference between academic performance in accordance with gender $t (245) = 1.875$ which is not significant at $\alpha = .05$; place of residence $t (245) = 1.795$ which is not significant at $\alpha = .05$; fathers education $t (245) = .489$; which is not significant at $\alpha = .05$ and mothers education $t (245) = .716$ which is not significant at $\alpha = .05$. This implies that there is no difference in academic performance in accordance with gender of respondents, place of residence of the respondents and parental education.

c) Variation with Age and variation with parental occupation

The mean difference between age and academic performance was determined by using ANOVA. Table 5 shows a summary of the mean difference between age group and academic performance by using ANOVA.

<table>
<thead>
<tr>
<th>Variables</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>1.665</td>
<td>2</td>
<td>.832</td>
<td>3.673</td>
<td>.027</td>
</tr>
<tr>
<td>Within Groups</td>
<td>55.062</td>
<td>243</td>
<td>.227</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>56.726</td>
<td>245</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Multiple Comparisons

<table>
<thead>
<tr>
<th>(I) Age</th>
<th>(J) Age</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>Below 18</td>
<td>-0.52010*</td>
<td>0.21559</td>
<td>0.044</td>
<td>-1.0285</td>
</tr>
<tr>
<td></td>
<td>23-25</td>
<td>-0.41091</td>
<td>0.22415</td>
<td>0.161</td>
<td>-0.9395</td>
</tr>
<tr>
<td>19-22</td>
<td>Below 18</td>
<td>-0.52010*</td>
<td>0.21559</td>
<td>0.044</td>
<td>-1.0285</td>
</tr>
<tr>
<td></td>
<td>23-25</td>
<td>0.10919</td>
<td>0.07802</td>
<td>0.343</td>
<td>-0.0748</td>
</tr>
<tr>
<td>23-25</td>
<td>Below 18</td>
<td>0.10919</td>
<td>0.07802</td>
<td>0.343</td>
<td>-0.0748</td>
</tr>
<tr>
<td></td>
<td>19-22</td>
<td>-0.41091</td>
<td>0.22415</td>
<td>0.161</td>
<td>-0.9395</td>
</tr>
</tbody>
</table>

* The mean difference is significant at the 0.05 level.

A one-way between-groups analysis of variance was conducted to explore the impact of age on academic performance, as measured by the cumulative grade point average (CGPA). Subjects were divided into three groups according to their age (Group 1: below 18; Group 2: 19-22; Group 3: 23-25).

There was a statistically significant difference at the \( p < 0.05 \) level in CGPA scores for the three age groups. [\( F(2, 246) = 3.673, p = 0.027 \)]. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Group 1 (\( M = 2.298, SD = 0.411 \)) was significantly different from Group 2 (\( M = 2.8181, SD = 0.474 \)). Group 3 (\( M = 2.7089, SD = 0.488 \)) also differ significantly from Group 1 and 2.

Figure 1: Means plot for impact of age on academic performance

As it can be seen from the above figure of means plot, academic performance is significantly different with different age group of the learners. The figure implies that academic performance (CGPA) is low at age of 18 and below while age groups 19-22 recording the highest.

**d) Hypotheses: Students teacher interaction and academic achievement**

The hypotheses was stated as; “There is a positive relationship between students-teacher interaction and academic performance of college trainee teachers.” To test this hypothesis, the researcher asked respondents to rate their level of interaction with their teachers. The rating was according to Likert scale with one representing strongly disagree, two representing disagree, three representing undecided, four representing agree and five representing strongly agree and the reverse for questions which were negative.

Summary of the Pearson Product Moment correlation analysis for the relationship between student teacher interaction and academic performance

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGPA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson correlation</td>
<td>1</td>
<td>0.218**</td>
</tr>
<tr>
<td>Sig(2-tailed)</td>
<td>246</td>
<td>0.001</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>246</td>
</tr>
<tr>
<td>Students-teachers interaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson correlation</td>
<td>0.218**</td>
<td></td>
</tr>
<tr>
<td>Sig(2-tailed)</td>
<td>0.001</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>246</td>
<td></td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
According to the above Table, student-teachers interaction and academic achievement were significantly positively correlated, \( r (246) = 0.218, p = 0.001 \) at the 95% of confidence level. This indicates that academic achievement would be significantly positively affected by their level of interaction with their teachers. This result implies that the level of interaction increase or become high, the academic achievement of students increase.

e) Preliminary Multiple Regression Analyses

Preliminary analyses were conducted to ensure no major violations of the assumptions of multicollinearity, normality, linearity, were there. The results indicated that there were no major violations of the assumptions. Pallant (2007, P.155) explains that to check if there is multiple correlations among the predictors, the "Tolerance and VIF" values presented in the coefficients table are used. Accordingly, a Tolerance value less than 0.1 or a VIF value greater than 10 indicates multicollinearity. Thus, multicollinearity is not a problem in this study as all the Tolerance values were greater than 0.1 and the VIF values were less than 10.

On the other hand, the normal probability plot (P-P) of the standardized residuals and the scatter plot of standardized residuals were used to check whether the normality and linearity assumptions were met. The normal probability plot should indicate points lying in a reasonably straight diagonal line from bottom left to top right. The output from the multiple regression analysis in this study indicated asound linearity of points along the regression line as it indicated in appendix. Furthermore, Pallant also states that residuals should be roughly rectangularly distributed with most of the scores concentrating in the centre (along the 0 line). The output for the scatter plot also appeared to meet this assumption as the distribution of the scores is greatly rectangular in shape. Thus, the analyses in general showed that no major violations of the assumptions have been there. For details, refer to the outputs attached as part of the appendices.

Multiple Regression Analysis of the Overall contribution of (Gender, Age, Parental Education, Parental Occupation and Student-Teachers Interaction) in Predicting academic performance (\( n=246 \)).

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE</th>
<th>( \beta )</th>
<th>( r )</th>
<th>( pr^2 )</th>
<th>( spr^2 )</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
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<td>.080</td>
<td>-.124</td>
<td>-.119</td>
<td>-.015</td>
<td>-.014</td>
<td>.058</td>
</tr>
<tr>
<td>Age</td>
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<td>.073</td>
<td>-.062</td>
<td>-.023</td>
<td>-.004</td>
<td>-.0036</td>
<td>.336</td>
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<tr>
<td>Fathers’ education</td>
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<td>.077</td>
<td>-.079</td>
<td>-.044</td>
<td>-.005</td>
<td>-.0045</td>
<td>.284</td>
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<tr>
<td>Mother education</td>
<td>.080</td>
<td>.077</td>
<td>.083</td>
<td>.046</td>
<td>.0052</td>
<td>.005</td>
<td>.268</td>
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<td>Fathers’ occupation</td>
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<td>.042</td>
<td>-.104</td>
<td>-.003</td>
<td>-.0081</td>
<td>-.0076</td>
<td>.167</td>
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<tr>
<td>Mothers’ occupation</td>
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<td>.052</td>
<td>.051</td>
<td>.031</td>
<td>-.0020</td>
<td>-.002</td>
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<tr>
<td>Student-teachers interaction</td>
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<td>.052</td>
<td>.222</td>
<td>.218</td>
<td>.0454</td>
<td>.0441</td>
<td>.001</td>
</tr>
<tr>
<td>( R^2 )</td>
<td>.074</td>
<td>.042</td>
<td>2.353</td>
<td></td>
<td></td>
<td></td>
<td>sig 0.019</td>
</tr>
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</table>

The result from standard multiple regression presented in Table above shows that the set of variables entered into the model, in combination, significantly predicted academic performance \( F(8,237) = 2.353, p < .05; R^2(271), R^2(.074) \) and Adj.\( R^2(0.042) \). This means that Gender, Age, Parental Education, Parental Occupation and Student-Teachers Interaction together accounted for 7.4% of the variance in academic performance. \( R^2 \) was preferred over the Adjusted \( R^2 \) because it gives a more approximate figure of the real variance in the true population when large samples are used (Pallant, 2007, p.158). On the other hand, the result also implies that some other unmeasured variables accounted for the remaining 92.6% of the variance in academic performance.

XII. Discussion

Objective: Student-Teachers interaction and academic achievement

The hypothesis stated as the highest student-teachers interaction the highest would be student’s academic achievement in college. To test this hypothesis the researcher was developed standardized questionnaire and adopted into Ethiopian context. The reliability of the questionnaire was tested by pilot study by using crombach’s alpha test and its reliability level
was 0.845 which was found to be acceptable. The Pearson Product Moment Correlation was used to determine the relationship between student-teachers interaction and academic achievement. The Pearson correlation result shows \( r (246)=0.218, p=0.001 \) The finding reveals that there is significant difference in the academic performance between students who have high interaction with their teachers and students low or no interaction with their teachers. The mean academic performances of the students with and without teachers’ interaction were 2.69 and 2.89 respectively. It is evident that students with high interaction with their teachers significantly score higher in their academic performance compared to students with less interaction with their teachers.

The findings of this study are consistent with the research conducted by Bembenutty, et al. (2007) who argued that students with smooth relationship with their teachers tend to be more self-regulated and persistent in their learning, more motivated to learn and to be successful in their learning, experience less stress and good participation in class, and as a consequence have higher academic achievement and better perform in college than their counterparts who are low interaction with their teachers. Pianta, (1994; Lee, 2007) reported that students who have strong beliefs toward their teachers tend to be more self-regulated and persistent in their learning, more motivated to learn and to be successful in their learning, experience less stress and good participation in class, and as a consequence have higher academic achievement and better perform in college than their counterparts who are low interaction with their teachers. This result revealed that the level of interaction increase or become high, the academic achievement of students would become increase.

• There was statistically significant difference in academic performance between college students in different age groups.

• According to regression result the t-test associated with the beta value of the predictor (student-teachers Interaction) is making a significant contribution to the academic achievement.

• There was no statistically significant difference between male and female academic achievement of trainee teachers at Dilla College of teachers education. The result implies that male and female students have equal probability to succeed in college if the environment is conducive for teaching learning process.

XIV. Recommendations

Basing on the study findings and the conclusions, the researcher derived the following recommendations:

Objective: student-teachers interaction and academic achievement

Data collected from the study, presented information that suggests future workshops for educators and administrators, that may have a positive effect on the proven significance of the teacher-student relationship problem. Several issues should be addressed.

First, teachers should be provided with the appropriate resources and assistance to meet the needs of their students beyond academic instruction. Although here is no “one size fits all” solution, teachers should have the opportunity to develop a myriad of strategies that will help them understand the diversity and the complexity of their issues. Diversity and awareness training can be provided, while creating opportunities within the school for teachers and students to have non-academic interactions such as mentoring or family-type activities.

Second, students and teachers need to be provided with measurable and attainable goals to create experiences with and exposure to success. Accountability is crucial for both staff and students. Instructional and remediation strategies need to be implemented to prevent students from falling through the cracks. The development of effective professional learning communities would help teachers plan strategies to differentiate instruction and provide resources to create gender and culturally relevant lessons.

Third, there is a need for immediate action, highlighted by the slightly negative relationship between motivation and achievement. Research states that positive relationships positively influence motivation and
motivation is very important thing for academic success Bembenutty, et.al. (2007); the issue at hand is how to capitalize on these relationships and the student’s motivation, to act as catalysts for achievement. If the students in college are motivated by their teachers, they start asking questions and it made them to make smooth relationship with their teachers and their academic performance will be good. Educators need to assist and challenge students to define their personal success, which can influence their performance.

Fourth, there is a tendency for colleges to focus on low achiever student so as to investigate the problem that affect their academic achievement taking immediate action accordingly. The need to meet state and national progress standards may be resulting in some colleges focusing so intently on the lowest performing students that their high performing students could begin to decline. High performance students could be experiencing lack of academic challenges and/or lack of recognition, as teachers are taking the time to build relationships with the lowest performing students. There needs to be a balance where all students are challenged and where the students who need additional assistance are provided with the appropriate scaffolds.

Lastly, the results of this study indicate there is indeed a statistically significant relationship between teacher-student interactions and motivation. This supports the need for more research to bridge the gap between motivating students and identifying the influential variables that influence their achievement.

REFERENCES


The Relationship between Student-Teachers Interaction and Academic Achievement of Trainee Teachers in Dilla College of Teacher Education


