

Relationship Between  
Student-Teachers'  
Personal Characteristics  
And Anxiety Towards  
Teaching Practice. A Case  
Of University Of  
Kabianga And Laikipia  
University, Kenya

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**ABSTRACT**

Teaching Practice (TP) also called Practice Teaching is the working of a student-teacher in a real classroom setting to gain teaching experience. TP is important for students' professional development and has been steadily gaining ground since the publication of the Coleman report in the nineteen sixties. Many student teachers are said to experience anxiety towards teaching practice exercise which interferes with their performance. In Kenya few studies have been done concerning student teachers anxiety towards TP and learner demographic factors. This study investigated university student teachers' anxiety levels towards TP with the view for mitigating against anxieties and finding out how anxiety relates with learner demographic factors. Two Kenyan universities; University of Kabianga and Laikipia University were involved in this study. Research design was descriptive-correlational research design while research method was cross-sectional analytical survey. A questionnaire was administered online and it comprised of two sections; student teacher characteristics (demographic factors) and TP anxiety (Student Teacher Anxiety Scale (STAS)). Student-teacher factors and anxiety were determined through SPSS analytical tool. Relationship between TP anxieties and demographic factors was determined through three-way analysis of variance (Anova). The findings indicated high levels of TP anxiety in the category of evaluation and no relationship between TP anxiety and demographic information availed during the study.

**Key words:** Teaching practice, Demographic factors, Teaching practice anxieties, Academic achievement

**1. INTRODUCTION**

Teaching Practice (TP) also called Student Teaching defined as a full time, school-based experience that is supervised by both a certified experienced teachers and University Supervisors. The primary objective of student teaching is to provide the opportunity for acquisition and demonstration of instructional competencies for beginning professional educators (IUPUC Division of Education Indiana University-Purdue University Columbus, 2015). In addition, TP leads to a constructive change in student teachers towards teaching process because the experiences and activities carried out enable them to form general perspective concerning a teachers' job and responsibilities (Ponte & Brunheira, 2001). TP is a central component to teacher education programs everywhere in the world as observed by many researchers (Kasanda, 1995; Ngidi & Sibaya, 2003:18; Marais & Meier, 2004:220; Perry, 2004:2)

TP involves three personalities namely; The Student Teacher/teacher candidate, the Supervising Teacher/substantive/co-operating teacher and the University Supervisor/assessor which make up the Student Teaching Triad (IUPUC Division of Education Indiana University-Purdue University Columbus, 2015).

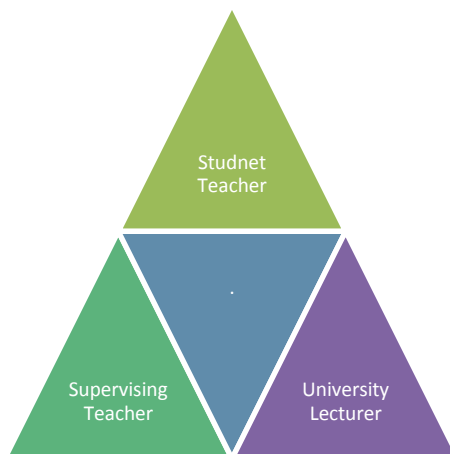


Figure 1: Teaching Practice Triad (Source:(IUPUC Division of Education Indiana University-Purdue University Columbus, 2015)

However it appears that the learner who is a very important component of TP is omitted in the Triad given by IUPUC, 2015. This study has added the learner at the center of the triad because the TP process revolves around the learner. It is the learner the student teacher engages with in the classroom. Without the learner the TP process will not take place since the student teacher cannot teach an empty classroom. Figure 2 shows this study's conceptualization of the TP.

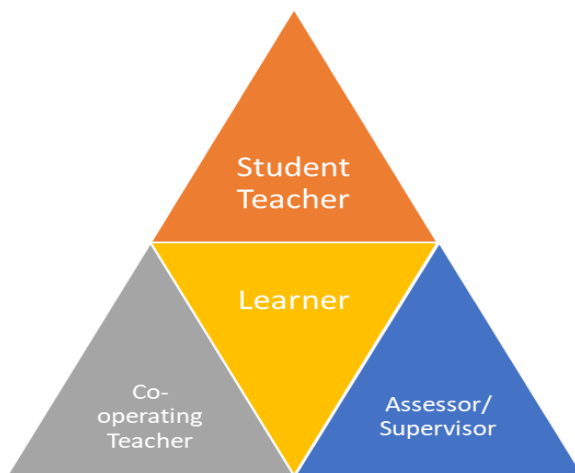


Figure 2: Teaching Practice Triad (Source: Authors)

TP is a co-operative, ongoing process of personal development and professional growth of the student-teacher and one for which the supervising teacher/school, tutor/ education department and student are mutually accountable (Hodgson, 1976). From this argument, the learner should not be left out in the TP triad.

The basic role of the triad members is to work as a team through constant communication to support, enhance, and prepare the student teacher to become a reflective professional. Each member has a specific set of responsibilities and roles that provide the foundation for a successful student teaching experience (University

of Minnesota, 2022). The responsibilities and expectations for each member may be a source of anxiety on student teacher.

### **1.1 LEARNER CHARACTERISTICS**

Learner characteristics include social, cognitive, and academic elements of a learner which play a pivotal role in both how and what students learn. Learner characteristics can be personal, academic, social/emotional, and/or cognitive in nature. *Personal* characteristics often relate to demographic information such as age, gender, maturation, language, social economic status, cultural background, and specific needs of a learner group such as particular skills and disabilities for and/or impairments to learning (Drachsler & Kirschner, 2012). This study investigated some aspects of learner personal characteristics. Social and emotional characteristic relate to the group or individual with respect to the group, such as group structure, place of individual in a group, sociability, self-image, feelings of self-efficiency among many others (Devesha, 2020). This study looked at issues of self-image and feelings of self-efficiency of student teachers.

### **1.2 ACADEMIC ANXIETY**

The feeling of being distressed, fearful, or stressed out as a result of school pressures is called academic anxiety (4964104180009246281.Pdf, n.d.). In addition, academic anxiety is experienced most often during timed exercises and Scholastic Assessment Tests (SATs), or when presenting assigned tasks to classmates. The way in which someone experiences this anxiety can range from mild, momentary jitters at having to read out loud in class, to a serious disorder in which a person experiences overwhelming panic and has difficulty functioning normally. Students experiencing academic anxiety feel apprehensive over academic tasks and can feel anxiety related to every academic task. Some may only feel anxiety related to test taking or other specific tasks (Hooda & Saini, 2017).

### **1.3 STUDENT TEACHERS' ANXIETY DURING TP**

TP is an academic activity and therefore prone to academic anxiety. Academic anxiety towards TP is called TP anxiety. Due to this heavy responsibilities and dispositions student teachers tend to be anxious about the whole exercise of TP. TP may be demoralizing and a very frightening experience if the student teacher was not well prepared by the tutors (Steyn & Killen, 2001). Anxiety is a feeling of worry, nervousness, or unease about something with an uncertain outcome. TP student teachers' anxieties then are a feeling of worry, nervousness, or unease about PT because it normally has uncertain outcome. (McBride, 1984; Wendt & Bain, 1989; Behets, 1990; Cowden, 2009).

Evaluation anxiety can be an asset as well as a liability in the program evaluation context. For example, a moderate level of evaluation anxiety motivates people to perform. It is only when this anxiety becomes excessive that evaluators are likely to encounter a range of difficulties that can undermine the quality of their work (Donaldson et al., 2002). This study aimed at establishing levels of TP anxiety among student teachers that would probably undermine student's work with the intentions of mitigating against such anxieties.

#### **1.4 EFFECTS OF TP ANXIETY ON TP EXERCISE**

High levels of stress, failure and disappointment during TP could be as a result of high levels of TP related anxiety (Eksi & Yakışık, 2016). TP related anxiety has been determined using Student-Teachers Anxiety Scale (STAS) (Capel, 1997; Morton *et al.*, 1997). This scale was developed by Hart (1987) using samples of student teachers in England and comprised of statements with regard to practice teaching. The scale ranged from; Very much (4), Moderately (3), Somewhat (2), Rarely (1), Never (0) and this STAS was adapted in this study.

#### **1.5 OBJECTIVES OF THE STUDY**

Specific objectives of this study were:

- To determine levels of anxiety among student teachers towards teaching practice.
- To find out the relationship between student-teachers' demographic factors and anxiety levels towards teaching practice.

#### **1.6 RESEARCH QUESTION**

RQ 1: What are the levels of anxiety among student teachers towards teaching practice?

#### **1.7 HYPOTHESES OF THE STUDY**

Ho1: There is no statistically significant relationship between student-teachers' demographic factors and anxiety levels towards teaching practice.

## **2. THEORETICAL FRAMEWORK**

This study was anchored on Situated Learning Theory (STL) which was first proposed by Jean Lave and Etienne Wenger in late 1980's and postulates that newcomers naturally assimilate norms, behavior, values, relationships, and beliefs of their place of work (Kemp, 2018). As such learning is a social process where knowledge is co-constructed in a specific context and embedded within a particular social and physical environment (Lave & Wenger, 1991). Student teachers once assigned to schools for practice, join a community of practice which captures both social and physical environment. Student teachers get support from learners, cooperating teacher, assessor and school administration. Other social support come from all teachers in the school, support staff and parents and this was no exception in this study.

### **2.1 CONCEPTUAL FRAMEWORK**

The following was the conceptual framework of this study.

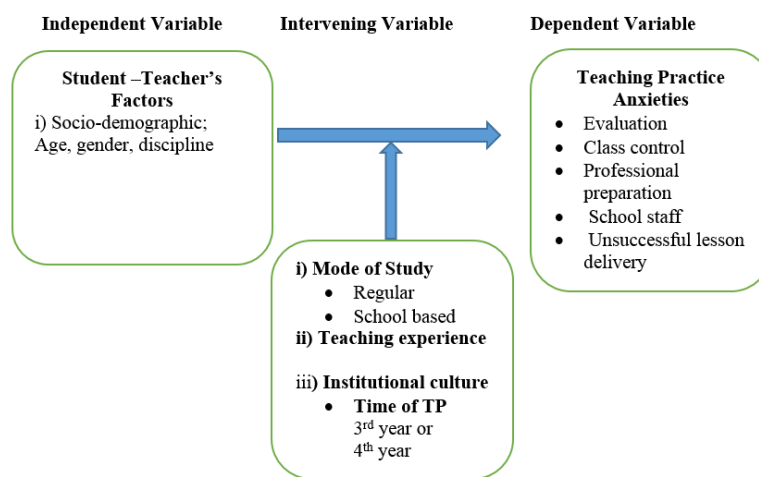


Figure 3. Relationship between independent, dependent and intervening variables of the study

### 3. RESEARCH METHOD

Descriptive-correlational research design was employed in this study and research method was cross-sectional analytical survey which involves analyses of the relationship between different elements (variables) in a sample group (Yumpu.com, n.d.) The target population was all University student teachers who proceeded for TP in Kenya in the year 2021. The accessible population was student teachers on TP in Kenya and two Universities were randomly sampled to participate in the study Kenya -University of Kabianga (UoK) and Laikipia University(LU)}. The sampling procedure was simple random sampling and sample size was 105 pre-service and post-service school teachers in the two Universities enrolled in School of Education (SoE). In Kenyan Universities student teachers attend TP only once at the end of either third year of study like in UoK or at the end of fourth year as it happens in LU.

#### 3.1 RESEARCH TOOL

An online questionnaire, Student Teacher Anxiety Scale (STAS) was used for data collection. STAS is a five-point Likert-type scale with 26 items with options- Very Much (VM); Moderately (M); Somehow (SH); Rarely (R); and Never (N). The STAS has high reliability with an internal consistency reliability coefficient of .92 and a retest reliability coefficient of .94. It was adopted for this study then modified to suit words that are commonly used in Kenya. The main modification was on somewhat which was changed to somehow.

#### 3.2 DATA ANALYSIS

The data obtained from the questionnaire were computer coded and processed with the Statistical Package for the Social Sciences (SPSS) version 22 and several statistical analysis techniques were implemented. The following methods of analysis were employed:

1. Descriptive Statistics such as frequency, percentage, mean, and standard deviation was used to describe the student teachers' demographic data and their anxieties level towards TP.

2. Regression analysis was used in determining whether there exists a significant relationship between student teachers' demographic data and anxiety levels regarding TP.

#### 4. RESULTS

To answer the research question on anxiety levels and demographic information, the answers were sought from the participants:

##### Student Teachers' Demographic Information

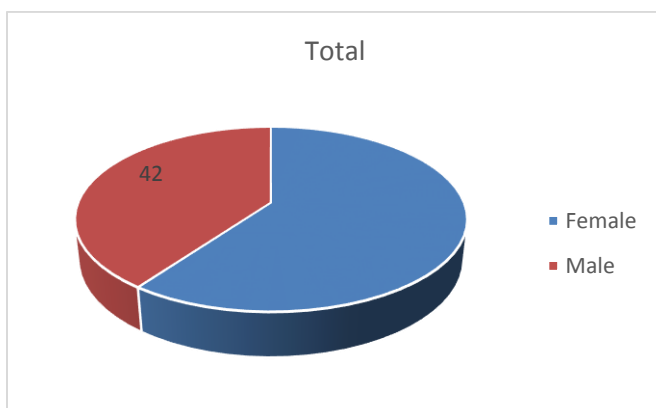


Figure 4: Gender

42% of the respondents were male while the remaining 58% were female. Female were more responsive to questionnaires than male students.

##### Student Teachers' Age Groups

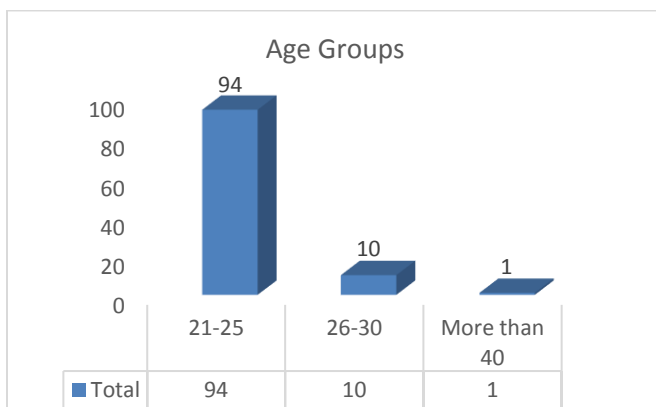


Figure 5: Age group

94 of the 105 respondents are in the age bracket 21-25 with the remaining 10 being in the 26-30 age bracket.

**Student Teachers' Year of study**

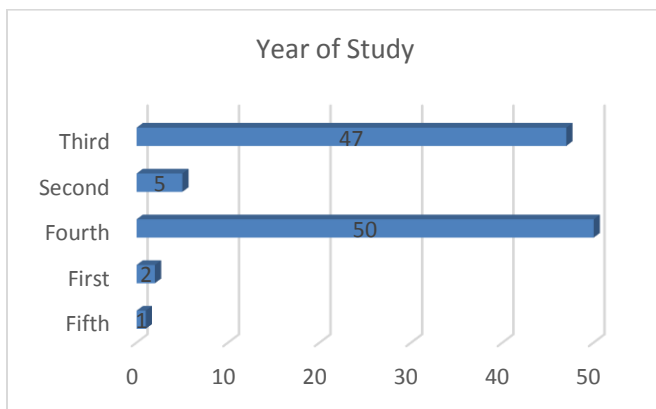


Figure 6: Year of study

47 of the 105 respondents were in the 3<sup>rd</sup> year of their 4 year training of teacher education course (Kabianga University students attend TP in their third year). 50 of the respondents were fourth year students from Laikipia University where TP course is offered in fourth and final year of teacher education programme. The 2 first year students were post graduate students studying a post graduate diploma in education at Kisii University. The 5 second year students were diploma student-teachers at University of Kabianga.

**Institution**

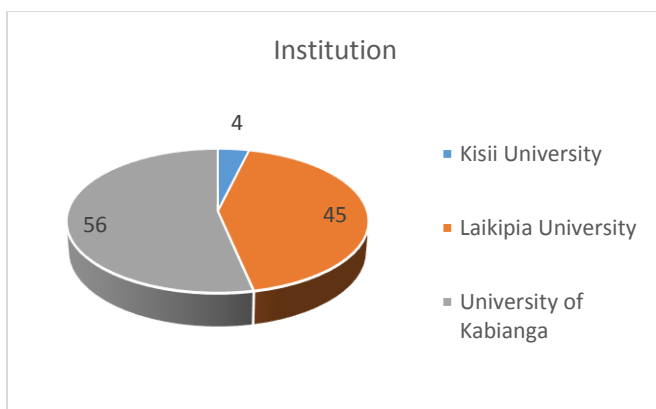


Figure 7: Institution of Study

Three institutions were involved in this study. Majority of the respondents were from University of Kabianga and Laikipia University. The four students from Kisii University undertook TP in same school with UoK students and as such they filled in the questionnaires.



**Study Programme**

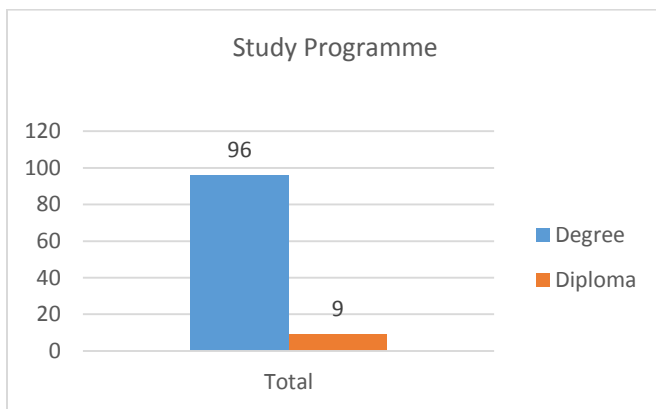


Figure 8: Study programme

96 Of 105 student-teachers respondents were doing their degree programs while 9 were diploma students.

**Mode of study**

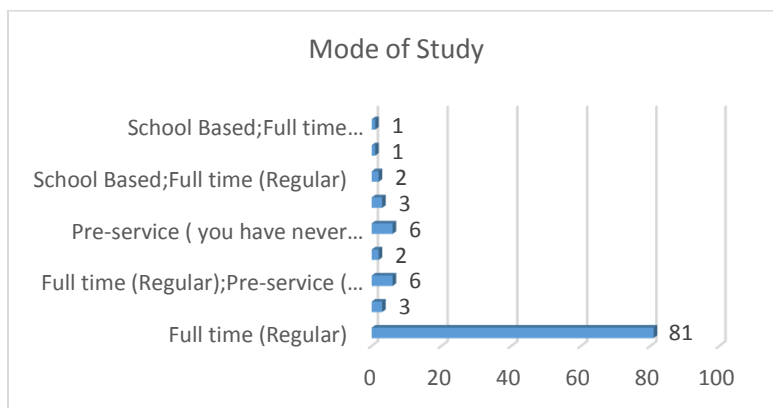


Figure 9: Mode of study

81 of the 105 student teachers were studying on regular full time mode while the others were in irregular mode.

**Area of Specialization**

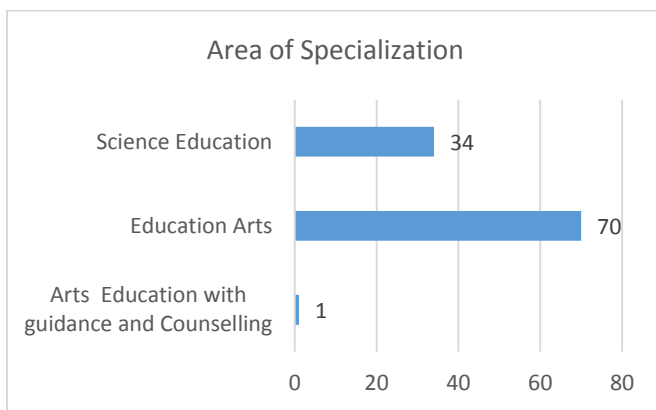


Figure 10: Area of Specialization

70 of the 105 respondents are in education arts while 35 were in education science.

**Teaching Subjects**

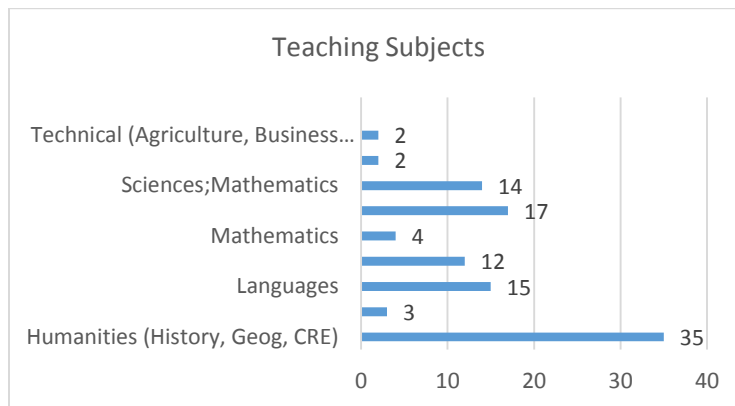


Figure 11: Teaching Subjects

38 of the 105 students were in arts which specialize in humanity subjects, 18 are in mathematics, 17 sciences, 15 were in languages while 4 were in technical areas.

**Teaching Experience**

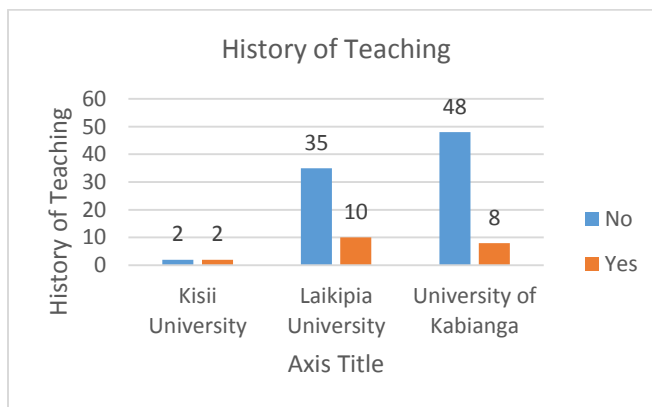


Figure 12: Teaching Experience

20 of 105 student teachers had teaching experience while 85 had no experience in teaching.

**Student teachers' TP Anxiety**

This information was collected from responses to questions revolving around the first objective of the study about factors that caused anxiety in student teachers. There are 5 categories of TP anxieties namely evaluation anxiety, class control anxiety, professional preparation anxiety, school staff anxiety and unsuccessful lesson delivery anxiety (Hart, 1987). The mean scores of the 5 categories of anxiety are shown in figure 13.

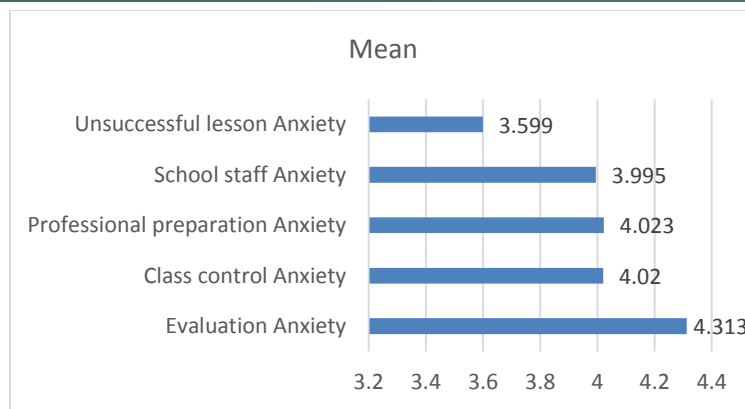


Figure 13: Anxiety levels of Student teachers

Figure two shows that student teachers generally have high levels of TP anxiety. The mean scores of all the categories is above 3.5 out of 5.0. This means student teachers in the two universities experience high levels of anxiety towards TP. The highest anxiety is in the category of evaluation.

**Student Teachers Anxiety per category**

Table 1: Evaluation Anxiety

Indicators	Mean	Description
Anxiety about how helpful members of the school staff will be	4.53	Very high
Anxiety about assessment by the lecturer	4.46	Very high
Anxiety about what lesson the lecturer would come and see	4.04	Very high
Anxiety about being observed by my lecturer when teaching	3.99	High
Anxiety about how the practice teaching will go in my lecturer's eye	4.42	Very high
Anxiety about getting all the paperwork done in time	4.36	Very high
Anxiety about what my lecturer will expect	4.26	Very high
Anxiety about maintaining a good enough standard of preparation	4.44	Very high
Average Mean	4.31	Very High

Legend: 1.00-1.99 Low; 2.00-2.99 Moderate, 3.00-3.99 High; 4.00-5.00 Very High anxiety

Table 1 indicates that student teachers have very high levels of TP anxiety in the category of evaluation (4.31). This implies that respondents frequently experienced nervousness and fear of evaluation by their mentors like cooperating teachers, internship supervisors and department heads or principal. Highest anxiety existed on staff member evaluation (4.53) followed closely by lecturer evaluation at 4.46. This finding are consistent with those of a similar study undertaken in Kenya that reported that in general, higher anxiety was reported on items associated with evaluation (Otanga & Mwangi, 2015). The result support the findings of (Capel, 1997b) (Soriano, 2017), (Hart, 1987b) & (Morton, Vesco, Williams, et al., 1997) that student-teachers anxieties were related to evaluation. However their findings showed student teachers had moderate anxieties while in the current study the level of evaluation anxiety is very high. Their studies also revealed that student-teachers world-wide were anxious about evaluation.

This findings are in agreement with those of Ngidi and Sibaya that student teachers were more anxious about evaluation (Ngidi & Sibaya, 2003). It is worth noting that the highest level of evaluation anxiety falls in the category of evaluation by staff member. The reason behind this could be that this staff members also called mentor teacher will be totally new to the student and therefore a stranger. Lack of familiarity with the staff member would create this high anxiety. In addition anxiety from university supervisor was second in evaluation category. This could be explained by the fact that some of the university lecturers would also be totally new to the student teacher and the whole issue of lack of familiarity create anxiety. To reduce supervisor’s anxiety I suggest that faculty should make sure that there is a deliberate familiarization of the university supervisors with the student teacher before TP kicks off.

*Table 2: Class control Anxiety*

Indicators	Mean	Description
I am anxious about class control	3.75	High
I am anxious about setting work at the right level for the learners	3.94	High
I am anxious about how to give each learner the attention he/she needs without neglecting others	4.19	Very High
I am anxious about whether or not my performance will be satisfactory from the point of view of the subject teacher	4.20	Very High
Average Mean	4.02	Very High

*Legend: 1.00-1.99 Low; 2.00-2.99 Moderate, 3.00-3.99 High; 4.00-5.00 Very High anxiety*

Table 2 shows an average of 4.02 with mean range of 3.75-4.20. A mean range of 3.75 – 4.20 indicates high and very high anxiety on classroom control. Anxiety in terms of controlling the class had the lowest mean of 3.75, about setting work at the right level for the learners had mean of 3.94. Both of this means indicate high anxiety level. Very high level anxiety level in this category was reflected on how to give each learner the attention he/she needs without neglecting others (4.19) while about satisfactory performance from the point of view of the subject teacher was (4.20).

This means that the respondents highly experienced worry about; class control and setting work at the right level for the learners. Concerning how to give each learner the attention he/she needs without neglecting others and whether or not his/her performance will be satisfactory anxiety was very high.

This findings are in agreement with research findings that pedagogical and classroom management were factors that contribute to the student teachers anxiety (Morton, Vesco, Williams, et al., 1997). In addition classroom management is a common concern of student teachers (Jones & Jones, 2016) . This finding also parallels Capel (1997) and Hart (1987) who found out that student teachers' anxiety was associated with concerns about classroom control.

Table 3: Professional preparation Anxiety

Indicators	Mean	Description
I am anxious about maintaining a cheerful approach during TP	4.30	Very High
I am anxious about completing lessons in the required form	3.97	High
I am anxious about whether or not my lesson plans will be adequate	3.74	High
I am anxious about how to handle defiance from a learner	4.08	Very High
Average mean	4.02	Very High

Legend: 1.00-1.99 Low; 2.00-2.99 Moderate, 3.00-3.99 High; 4.00-5.00 Very High anxiety

Table 3 reveals very high levels of anxiety in professional preparations category as the mean is 4.02. The highest anxiety in this category is about maintaining a cheerful approach during teaching practice (4.30) followed by anxiety about how to handle defiant learners (4.08). Discipline is a key component to effective classroom management. A teacher who uses consistent discipline strategies exhibits more effective classroom management than an inconsistent teacher (*Types of Discipline in the Classroom / Synonym*, n.d.). A close look at the curriculum of teacher education at University of Kabianga revealed that class management topic is missing in their general education courses CIM 111- Fundamentals of Instruction and CIM 210- Instructional Methods. There is need to have this topic included in one of these courses. However students from Laikipia University are taught class management in one of their general educational courses (EDCI 321-Pedagogy) but still expressed very high levels in this area.

Furthermore student-teacher expressed high level of anxiety in preparation and use of lesson plan. This is despite having been taught in both general education course and special subject methods courses. There is need for further research to ascertain the reasons behind this high level of anxiety.

This findings are in agreement with those of Morton et al. who reported that professional preparation was a factors that contribute to the student teachers anxiety (Morton, Vesco, Williams, et al., 1997). Thompson found that student teachers had expressed concerns about student discipline and to design lesson plans (Thompson, 1963).

Table 4: School staff Anxiety

Indicators	Mean	Description
I am anxious about cooperation with the school staff	4.00	Very High
I am anxious about coping with the school staff	4.08	Very High
I am anxious about selecting suitable lesson content	3.70	High
I am anxious about whether the Principal will be happy with my work	4.20	Very High
Average mean	4.00	Very High

Legend: 1.00-1.99 Low; 2.00-2.99 Moderate, 3.00-3.99 High; 4.00-5.00 Very High anxiety

Table 4 reveals that the overall school staff anxiety is very high (Mean = 4.00). The highest anxiety level in this category is about whether the school principal will be happy with the student teacher's work (4.20). About selecting suitable lesson content had the lowest mean in this category with a mean of 3.70 with signifies high anxiety. This category of anxiety ranked fourth out of fifth thereby being second lowest. This finding are

consistent with those of a similar study undertaken in Kenya that reported that in general, lower anxiety on items related to school staff (Otanga & Mwangi, 2015). In their study Ontanga & Mwangi found anxiety on school staff to the lowest of the five categories.

Table 5: Unsuccessful lesson Anxiety

Indicators	Mean	Description
I am anxious about how the lecturer will react to one or more unsuccessful lessons if they should occur	3.71	High
I am anxious about incidents of misbehaviour in class	3.46	High
I am anxious about how the subject teacher will react to one or more unsuccessful lessons if they should occur	3.66	High
I am anxious about possible problems in the class with individual disruptive learners	3.43	High
I am anxious about whether or not I will cover the materials adequately	3.73	High
Average Mean	3.49	High

Legend: 1.00-1.99 Low; 2.00-2.99 Moderate, 3.00-3.99 High; 4.00-5.00 Very High anxiety

Table 5 shows that anxiety toward unsuccessful lesson is high but lower than anxiety level in all other categories with an average mean of 3.49. The highest anxiety in this category was about whether or not the student teacher will cover the materials adequately during a lesson (3.73). Student teachers were less anxious about incidents of misbehaviour in class (3.46) and least anxious about possible problems in the class with individual disruptive learners (3.43).

This finding is in agreement with those of Ngidi and Sibaya (2003) that student teachers were more anxious about unsuccessful lessons.

**Relationships between Teaching Practice Anxieties and Personal Characteristics**

Table 6: Pearson's correlation coefficient between Age and Anxiety Levels

	Age	Evaluation Anxiety	Class control Anxiety	Professional preparation Anxiety	School staff Anxiety	Unsuccessful lesson Anxiety
Pearson Correlation	1	-.048	-.071	.021	.024	-.087
Sig. (2-tailed)		.628	.473	.829	.811	.379
N	105	105	105	105	105	105

Table 6 indicates that TP anxieties under the 3 categories (evaluation, class control and unsuccessful lesson) have a negative relationship with age of student teacher. As the age increases then anxieties decrease. On the other hand, the relationship of professional preparation and school staff is very weakly positive. This means as age increases professional preparation and school anxiety increase with a small margin though. However, the relationship influence is not statistically significant meaning they are small.

Table 7: Pearson's correlation coefficient between Gender and Anxiety Levels

	Gender	Evaluation Anxiety	Class control Anxiety	Professional preparation Anxiety	School staff Anxiety	Unsuccessful lesson Anxiety
Pearson Correlation	1	.026	.031	.025	.051	-.085
Sig. (2-tailed)		.793	.753	.801	.603	.387
N	105	105	105	105	105	105

Table 7 indicates that TP anxieties under the 5 categories have a positive relationship with gender. Gender of the student teacher impacts then anxieties positively. However the relationship influence are not statistically significant meaning they are small. The highest and strongest positive relationship exist with class control followed by evaluation anxiety. Unsuccessful lesson has weak negative correlation -.085 with gender.

Table 8: Pearson's correlation coefficient between Institution and Anxiety Levels

	Institution	Evaluation Anxiety	Class control Anxiety	Professional preparation Anxiety	School staff Anxiety	Unsuccessful lesson Anxiety
Pearson Correlation	1	.185	.171	.236*	.232*	.036
Sig. (2-tailed)		.059	.082	.015	.017	.718
N	105	105	105	105	105	105

\*. Correlation is significant at the 0.05 level (2-tailed).

Table 8 indicates that TP anxieties under the 5 categories have a positive relationship with institution of study. As the institution of study changes then anxieties increase. In addition, the relationship influence are statistically significant for professional preparation and school staff anxiety. This means that these two anxieties are highly felt by students in one institution than the other. The highest and strongest positive and significant relationship exist with professional preparation followed by evaluation anxiety. Unsuccessful lesson has the lowest hence weak positive correlation -.036 with institution of study.

Table 9: Pearson's correlation coefficient between Study Programme and Anxiety Levels

	Study Programme	Evaluation Anxiety	Class control Anxiety	Professional preparation Anxiety	School staff Anxiety	Unsuccessful lesson Anxiety
Pearson Correlation	1	-.110	-.028	-.148	-.106	-.063
Sig. (2-tailed)		.265	.777	.133	.284	.526
N	105	105	105	105	105	105

Table 9 indicates that TP anxieties under the 5 categories have a negative relationship with programme of study. As the programme of study changes then anxieties decrease. However the relationship influence are not statistically significant meaning they are small. The highest and strongest negative relationship exist with



professional preparation followed by evaluation anxiety. Class control has the lowest hence weak negative correlation -.028 with study programme.

**Multiple regression analysis between student teachers' TP anxiety and demographic factors**

In order to determine whether TP anxiety can be predicted based on student's personal characteristic multiple regression was done and results are shown in Table 10.

Table 10: Model Summary of the Multiple Regressions

Model	R	R Square	Adjusted R Square	Std. Error of the Estimated
1	0.910 <sup>a</sup>	0.829	0.486	1.072

a. Predictors: (Constant), Mode of study, Gender, Year of Study, Discipline, TP school category, Teaching subject.

Table 10 indicates that 48.6% (Adjusted R-square= 0.443) of the variation in the anxiety level can be attributed to these five variables of demographic factors (Gender, Year of study: (3rd, 4th or 2nd), Mode of study: Regular or School-based, Discipline (Area of specialization): Science or Arts, Technical, Teaching Subjects: (Math, languages, science), TP school category: Mixed Day,

Mixed Boarding, Girls day, Girls boarding, Boys day & Boys Boarding. This means that there are other factors contributing to the remaining 51.4% influence on TP anxiety. The correlation between the TP anxiety and the six predictors in the sample population is 0.910 as suggested by the R value in the regression model. In addition R-square of 0.829 means that the model is 82.9% effective in predicting scientific creativity in chemistry.

To test whether R-square is statistically different from zero an ANOVA analysis was done.

After the regression analysis was run its ANOVA output is shown in Table 11.

Table 11: Analysis Of Variance (ANOVA) of TP anxiety and demographic factors

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.654	6	2.776	2.416	0.251 <sup>b</sup>
	Residual	3.446	3	1.149		
	Total	20.100	9			

a. Dependent Variable: TP Anxiety

b. Predictors: (Constant), TP anxiety, Mode of study, Gender, Year of Study, Discipline, TP school category, Teaching subject.

The results in Table 83 indicates that R-square was not significantly different from zero,  $F(6, 95) = 2.416, p = 0.251$ . This meant that an equation relating the dependent variable to the independent variables doesn't exist. Results further indicate that in combination the 6 independent variables: Gender, Year of study: (3rd, 4th or 2nd), Mode of study: Regular or School Based, Discipline (Area of specialization): Science or Arts, Technical, Teaching Subjects: (Math, languages, science) and TP school category: Mixed Day, Mixed Boarding, Girls day, Girls boarding, Boys day & Boys Boarding do not predict statistically significantly the dependent variable (TP



anxiety) because  $F(6, 95) = 2.416, p > 0.05$ . This is because the p-value for the Regression model F test is  $.0251 > 0.05$  therefore the model is not significant, and we can conclude that these 6 independent variables together do not predict the TP anxiety level of student teachers in LU and UoK.

The multiple regression indicates that all the six independent variable: Gender, Year of study: (3rd , 4th or 2nd), Mode of study: Regular or School Based, Discipline (Area of specialization): Science or Arts, Technical, Teaching Subjects: (Math, languages, science) and TP school category: Mixed Day, Mixed Boarding, Girls day, Girls boarding, Boys day & Boys Boarding do not predict the dependent variable TP anxiety;  $F(6, 95) = 51.4\%, p < 0.05$ . Therefore the 6 independent variables didn't add statistically significantly to the prediction, of TP anxiety since  $p > 0.05$ .

The intercept (constant) and the coefficients of the independent variables (B), the t-values and the p-values were also generated during the regression analysis. A t-value and a p-value were given for the constant and each independent variable in a regression output. An independent variable is said to be a significant predictor of the dependent variables if the t-value associated with it is greater than the critical t-value. The coefficients and associated statistics are in Table 12.

Table 12: The B, t-values and p-values of the Regression Output

Scale	B	t-value	p-value
Constant	4.856	1.279	.291
Gender	1.446	.942	.416
Year of study	-.277	-2.10	.847
Mode of Study	-.356	-1.581	.212
Area of specialization	-2.063	-1.790	0.171
Teaching subjects.	0.045	0.120	0.912
TP school	0.029	0.029	0.979

The results in the Table 12 shows that the intercept (constant) was 4.856, while the coefficients of independent variables TP anxiety, Gender, Year of study, Mode of study, Area of specialization(Discipline), Teaching subject and TP school are 1.446, -.277, -.356, -2.063, 0.045 and 0.029 respectively. Based on these results, the equation relating TP anxiety demographic factors: Gender, Year of study, Mode of study, Area of specialization (Discipline), Teaching subject and TP school category is;

$$Y_1 = 4.856 + 1.446X_1 - 0.277X_2 - 0.356X_3 - 2.063X_4 + 0.045X_5 + 0.029X_6$$

Where

$Y_1$  = TP anxiety

$X_1$  = Gender

$X_2$  = Year of Study

$X_3$  = Mode of study

$X_4$  = Discipline

$X_5$  = Teaching Subject

$X_6$  = TP school Category

The result in the Table 12 further revealed that the t-values of the all the independent variables are not statistically significant. This means all the dependent variables are not significant predictor of the dependent variable (TP anxiety). The following observations were made from the regression analysis:

- The equation relating the dependent variable to the independent/explanatory variables do not exist as the p-value of the ANOVA was not significant
- The model is 48.6% effective in predicting TP anxiety caused by 6 demographic factors; Gender, Year of study, Mode of study, Area of specialization (Discipline), Teaching subject and TP school category as indicated by the value of R-square
- The regression model cannot be used to explain the TP anxiety level in student teachers in LU and UoK.
- The equation can predict TP anxiety level in University student teachers.

$$Y_1 = 94.856 - 1.446X_1 - 0.277X_2 - 0.356X_3 - 2.063X_4 + 0.045X_5 + 0.029X_6$$

Therefore the equation for university student teachers TP anxiety can be written as;

TP Anxiety = Constant - Gender – Year of study – Mode of Study – Area of specialization (Discipline) + Teaching Subject – TP school category.

The influence of the six independent variables (Gender, Year of study, Mode of study, Area of specialization (Discipline), Teaching subject and TP school category) on the dependent variable TP anxiety can be arranged as follows starting with the most influential; Teaching subject, TP school category, Year of study, Mode of study, Gender and the least is Area of specialization (Discipline). Those with positive correlation (Teaching subject and TP school category) mean that they enhance TP anxiety after considering the other factors in the study. Those with negative correlation (Year of study, Mode of study, Gender and the least is Area of specialization (Discipline)) mean that after considering, Teaching subject and TP school category enhance TP anxiety for student teachers attending TP exercise. Inter correlations of these 6 factors are shown in Table 13.

Table 13: Inter correlations between TP anxiety, Gender, Year of study, Mode of study, Area of specialization (Discipline), Teaching subject and TP school category

Factor	Unstandardized Coefficients		Standardized Coefficients	t-value	Sig.
	Beta	Std. Error	Beta		
(Constant)	4.856	3.797		2.279	.291
Gender	1.446	1.536	.468	.942	.416
Year of study: (3 <sup>rd</sup> , 4 <sup>th</sup> or 2 <sup>nd</sup> )	-.277	1.319	-.096	-.210	.847
Mode of study: Regular or School Based	-.356	.225	-.452	-1.581	.212
Discipline (Area of specialization): Science or Arts, Technical	-2.063	1.153	-.727	-1.790	.171
Teaching Subjects: Math, languages, science	.045	.372	.063	.120	.912
TP school category: Mixed Day,	.018	.624	.010	.029	.979

Mixed Boarding, Girls day, Girls boarding, Boys day & Boys boarding.					
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F value = 2.416, Significance= .0251, R = .910, R<sup>2</sup> = .829; -insignificant at .05 level

a. Dependent Variable: TP Anxiety

b. Predictors: (Constant), Gender, Year of study, Mode of study, Area of specialization (Discipline), Teaching subject and TP school category

Results from Table 13 indicate that the influence of; Year of study, Mode of study and Discipline, on TP anxiety is negative because the regression coefficients are -0.210, -1.58 and -1.790 respectively after the effect of the other 3 variables; Gender, Teaching subject and TP school category is considered. The negative influence is highest for Discipline, then mode of study and least is year of study. TP anxiety in student teachers will decrease by -0.210, -1.58 and -1.790 when Year of study, Mode of study and Discipline increase by one holding the other three independent variables constant. It further indicates that by holding the other three independent variables (gender, Teaching subject and TP school category) constant TP anxiety in student teachers will decrease by -0.0210, -1.58 and -1.790 when Year of study, Mode of study and Discipline changes by one.

In addition result indicates that Gender, Teaching subject and TP school category has positive influence on TP anxiety. Furthermore results indicate that TP anxiety increase by 1.446, 0.045 and 0.018 when Gender, Teaching subject and TP school category increases by one holding other three independent variables (predictors) constant. On the other hand, the correlations between all the independent variables are not statistically significant at 0.05 because  $p > 0.05$ , Therefore the null hypothesis Ho1: There is no statistically significant relationship between student-teachers' demographic factors and their anxiety levels towards TP is accepted.

Furthermore, the single variable (Gender) noted in bold font in table 13, has its p-values (.461) less than the significance level of 0.942. This means that this variable can best predict student-teachers' anxiety.

Table 13 shows that student teacher's anxiety towards TP is not gender dependent, since  $[t(105) = .942, p = .416 > .05]$ . These findings are in agreement with those of Akinsola that, there were no gender-related mean differences of pre-service teachers' teaching anxiety scores (Akinsola, 2014). Other studies with findings consistent with current study are, Marso et al., (1996) & Ameen et al., (2002) reported that there are no gender related differences in student teacher's anxiety toward TP in mathematics. However some studies suggested that there are gender-related differences (Fish & Fraser, 2001). Morton et al., (1997) found a significant main effect of gender on anxiety with more female than male students reporting higher anxiety. A study done in Kenya found that gender had an effect on TP anxiety, where female student teachers recorded higher TP anxiety than male (Otanga & Mwangi, 2015).

Table 13 shows that TP anxiety is not dependent on school category where TP exercise was undertaken. TP anxiety was high for student teachers that went to Boys' only day and boarding, Girls' only day and boarding

and mixed day and boarding schools. This results are consistent with those of Otanga and Mwangi who found that no significant differences in TP anxiety were found between student teachers in girls and mixed schools (Otanga & Mwangi, 2015).

According to table 13, TP anxiety is not dependent on year of study when the student teacher goes for TP exercise since [ $t(105) = .942, p = .847 > .05$ ]. Student who undertook their TP exercise at year two (diploma and postgraduate diploma) had high anxiety like those who undertook the exercise after 3<sup>rd</sup> year (UoK) and those that undertook it after 4<sup>th</sup> year (Laikipia University). In addition, TP anxiety is not dependent on discipline of study since [ $t(105) = -1.790, p = .171 > .05$ ]. These findings are inconsistent with those of Merç who found that the most anxious groups of student teachers were from English Language Teaching and Social Sciences Teaching whereas the lowest level of anxiety belonged to Mathematics Teaching for Primary School (Merç, 2015).

TP anxiety was also not dependent on teaching subject area according to table 13. However according to Merç anxiety level of student teachers from English Language Teaching department at the beginning of the practicum was significantly higher than all other student teachers from the other disciplines. Similarly, when all language-related fields were considered (English Language Teaching, French Language Teaching, and German Language Teaching), the student teachers who are supposed to teach a foreign language had significantly higher levels of anxiety than student teachers from the aforementioned programs (Merç, 2015).

## 5. CONCLUSION

University of Kabiana and Laikipia University student teachers have very high levels of anxiety in the 5 categories of TP anxiety. TP anxiety measure in this study are; evaluation, class control, professional preparation, staff, and unsuccessful class anxiety. Student teachers experience highest level of anxiety towards evaluation and lowest towards unsuccessful lesson.

To counter this high level of TP anxiety, measures should be put in place to mitigate against evaluation anxiety which is the highest in the two universities. One way of mitigating against anxiety resulting from evaluation by the supervisor would be to ensure that all supervisors meet with the students if only during TP briefing as the faculty formally release the students to go for TP. During TP briefing the supervisors are introduced to the student teachers are given an opportunity to say a word. This familiarization may reduce anxiety as the supervisor visit and evaluate the student. Student teacher's anxiety levels under; evaluation, class control and school staff categories are not influenced by institution while anxieties under professional preparation and unsuccessful lesson are institution dependent.

Student teacher's anxiety levels are not influenced by their demographic factors such as gender, year of study, mode of study (regular or school based), discipline or area of specialization (science or arts), teaching subjects

and TP school category (Mixed Day school, Mixed Boarding, Girls Day school, Girls Boarding, Boys Day school, Boys Boarding).

## 6. RECOMMENDATIONS

There is need to have a follow-up study to determine causes of the very high levels of student teacher's anxiety towards TP in the two universities. In addition, the study should be extended to other universities and teacher training colleges in Kenya both private and public to determine whether the anxiety levels are similar. Further studies should also be done to determine the influence of these high levels of student teacher's anxieties on their performance in the TP exercise. Moreover, studies should also be done to determine whether and how the high levels of student teacher's anxieties can be reduced or addressed.

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