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PRE-SERVICE BACHELOR OF EDUCATION (TECHNOLOGY) DEGREE TEACHERS' PERCEPTIONS ON INSTRUCTIONAL SUPERVISION IN RELATION TO PREPARATION AND PLANNING FOR TEACHING AND LEARNING IN KENYA

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ABSTRACT

The study used Ex post facto research design to find out pre-service Bachelor of Education (Technology) degree teachers' perceptions about instructional supervision in relation preparation and planning for teaching and learning, and student's classroom involvement in National, County and Sub County schools in Kenya. Data collected using a self-response questionnaire and analyzed using descriptive statistics and analysis of variance. The established that there was no statistical significant difference between pre-service bachelor of education (Technology) degree teachers' perceptions on instructional supervision in relation to preparation and planning for teaching and learning in National, County and Sub County secondary schools in Kenya.

In addition, it was found that there was no statistical significant difference between pre-service Bachelor of Education (Technology) degree teachers' perceptions on instructional supervision in relation to classroom interactions in National, County and Sub County secondary schools in Kenya. The findings have implications on pre-service technology teacher education in universities and in curriculum implementation.

INTRODUCTION

Teachers play an important role in teaching-learning process in schools. Teaching-learning process in schools involves students' experience. Effective arrangement of students' experiences in the teaching-learning process enables students to develop expected behaviors. It is necessary to know how learning occurs and specify definite criteria to organize these experiences (Anagnostopoulos, Smith & Basmadjian, 2007). Education expresses setting of learning experiences from a student's perspective while that of teaching is based on teacher perspective. Effective preparation and planning of learning activities based on student-centred objectives is required ((Schmidt et al., 2009). In this regard, pre-service teacher education prepares trainees to effectively plan for classes to teach during internships (Inyega & Inyega, 2017).

Teacher qualities determine the efficiency of a teaching-learning process to influence student behavior in schools. Education quality is directly associated with what teachers do(Kigotho, 2020). It is known that all components in education system are important to conduct education and training activity, although teacher precedes other components (Özdaş, 2018). Teachers undertake significant roles in preparation and planning for teaching-leaning activities in schools to realize educational objectives(Piper et al., 2017).

Against this background, pre-service teachers need to be equipped with skills that focus on student-centered practices and consider their psychosocial aspects (Chigona, 2015). In order to achieve this, the curricula should include content related student-centered approaches, strategies, methods and techniques (Anagnostopoulos et al., 2007). These processes should be practiced in schools with appropriate modeling within the teacher preparation programs in university education to achieve a higher impact level (Hadullo et al., 2017). In so doing, a close connection is established between teachers' self-efficacy beliefs; their practices in class; and strategies and techniques; and methods they use to motivate students (Schussler et al., 2010). Pre-service teachers should be prepared on how to undertake physical arrangement of classrooms to facilitate learning and student achievement in schools (Alhajeri, 2011).

At school level, students feel autonomous when they believe that school actions are not just an obligation but rather a means to serve their interests (Carlos Núñez et al., 2017). This calls for teachers to clarify why class contents and activities are important or useful to the learners (Harris & Hofer, 2014). Nurturing inner motivational resources fosters student autonomy by reinforcing student interests and developing student curiosity (Shagoury & Brenda, 2012). A specific teacher behavior might be to explain class contents or frame class activities using interesting and up-to-date examples, or by asking curiosity-inducing questions. Participation encouragement makes students feel part of a class (Kihoza et al., 2016).

For instance, a teacher might ask for students' opinions about a new topic or welcome student points of view. Competence support enables students' feeling of accomplishment by knowing what it means and what it takes to be successful in learning process (Adegbenro & Olugbara, 2018).

Students feel competent at school when they feel capable of accomplishing learning activities (Carlos Núñez et al., 2017). Step-by-step instructions provide clear goals and students could know how to satisfy teacher expectations and achieve required academic outcomes (Sockett, 2009). Preparation and planning for teaching are important for teachers' readiness for class in terms of content, instructional methods and resources, teaching and learning activities and assessment of learning outcomes. In Kenya, pre-service teacher education prepares trainees to go and teach their respective subjects in schools before graduation. During the internships, pre-service teachers practice teaching in schools based on preparation done in teacher education colleges.

The pre-service teachers are supervised by their lecturers in addition to instructional supervision by Heads of Departments and school principals (Dickson, 2011; Inyega & Inyega, 2017; Tesema, 2014). Currently in Kenya, there is no documentation on Bachelor of Education (Technology) pre-service graduate teachers' perceptions on instructional supervision in relation to preparation and planning for teaching and learning in schools.

Against this background, the study sought to establish pre-service Bachelor of Education (Technology) graduate teachers' perceptions on instructional supervision in relation to preparation and planning for teaching and learning.

Hypotheses of the study.

The study had the following two hypotheses:

HO1: There is no statistically significant difference between pre-service Bachelor of Education (Technology) degree teachers' perceptions on instructional supervision in relation to preparation and planning for teaching and learning in National, County and Sub County secondary schools

HO2: There is no statistical significant difference between pre-service Bachelor of Education (Technology) degree teachers' perceptions on instructional supervision in relation to classroom interactions in National, County and Sub County secondary schools.

METHODS

The study employed *Ex Post facto* research design principles. It randomly sampled 100 pre-service graduate teachers undertaking the Bachelor of Education degree (Technology) at the Kenya Science Campus, School of Education, University of Nairobi in Kenya. The pre-service teachers had been prepared for teaching practice, which was undertaken during their third year of study, in the 2018/2019 for a duration of three months in various secondary schools across Kenya. During teaching practice, the pre-service teachers are posted to various secondary schools in Kenya.

The schools are categorized as National schools (with adequate teaching and learning resources), County schools (with above average provision of teaching and learning resources) and Sub County schools (with hardly sufficient teaching and learning resources). The pre-service teachers had frequently been supervised by university lecturers and professors as part of both teaching and assessment exercises.

On successful completion to the teaching practice exercise, the pre-service Bachelor of Education (Technology) teachers reported back to campus to continue with their fourth year of study. A validated questionnaire with items focusing on aims of teaching preparation and classroom practices was administered to the 100 sampled teachers, immediately after the teaching practice exercise, in campus. A return rate of 73 per cent was realized. The collected data was analyzed using descriptive and analysis of variance (ANOVA) based on SPSS version 21 to test the hypotheses.

RESULTS

The collected data was analyzed using SPSS version 21. The descriptive statistics for the analyzed data are shown in ***Table 1.***

Table 1: Descriptive Statistics for Pre-Service Bachelor of Education (Technology) Teachers' Perceptions on Instructional Supervision in Relation to Aims of Teaching Preparation

School category	N	Mean	SD	SE	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
National	12	51.25	10.906	3.148	44.32	58.18
County	34	48.88	14.312	2.454	43.89	53.88
Sub County	27	45.85	15.324	2.949	39.79	51.91
Total	73	48.15	14.166	1.658	44.85	51.46

It can be seen from Table 1 that the computed means for pre-service Bachelor of Education (Technology) teachers' perceptions about instructional supervision in relation to preparation and planning for teaching and learning in National, County and Sub County schools are 51.25, 48.88, and 48.15, with standard deviations of 10.906, 14.312, and 15.324, respectively.

The data was further analyzed using the Analysis of variance (ANOVA) procedures to test the null hypothesis that there is no statistically significant difference between Bachelor of Education (Technology) degree pre-service teachers' perceptions on instructional supervision in relation to preparation and planning in National, County and Sub-County secondary schools. The results for the analyzed data are shown in ***Table 2.***

Table 2: Teachers' Perceptions on Instructional Supervision in Relation to Preparation and Planning for Teaching/Learning

	SS	df	MS	F	p
Between groups	276.155	2	138.078	.682	.509
Within groups	14173.187	70	202.474		
Total	14449.342	72			

There is no statistically significant difference between pre-service Bachelor of Education (Technology) degree teachers' perceptions on instructional supervision in relation to preparation and planning for teaching/learning in National, County and Sub County secondary schools (F(2, 70)= .682, p=.509, α=.05)

From Table 2, it is evident that there is no statistically significant difference between pre-service Bachelor of Education (Technology) degree teachers' perceptions on instructional supervision in relation to preparation and planning for teaching and learning in National, County and Sub County secondary schools (F(2, 70)= .682, p=.509, MSE = 202.474, α=.05)

The study further sought to find out the pre-service Bachelor of Education (Technology) degree teachers' perceptions about instructional supervision in relation to classroom interactions in the National, County and Sub County schools in Kenya. The results for the analyzed data using descriptive statistics are shown in ***Table 3.***

Table 3: Descriptive Statistics for Pre-Service Bachelor of Education (Technology) Degree Teachers' Perceptions on Instructional Supervision in Relation to Classroom Interactions

School category	N	Mean	SD	SE	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
National	12	35.42	8.479	2.448	30.03	40.80
County	34	35.94	9.670	1.658	32.57	39.32
Sub County	27	33.48	10.914	2.100	29.16	37.80
Total	73	34.95	9.908	1.160	32.63	37.26

Table 3 shows that the computed means for pre-service Bachelor of Education (Technology) degree teachers' perceptions about instructional supervision in relation to classroom interactions in National, County and Sub County schools are 35.42, 35.94, and 33.48, with standard deviations of 8.479, 9.670, and 10.914, respectively.

The null hypothesis that there is no statistically significant difference between pre-service Bachelor of Education (Technology) degree teachers' perceptions on instructional supervision in relation to classroom interactions in National, County and Sub County secondary schools was tested using ANOVA procedures. The Results are shown in ***Table 4.***

Table 4: Pre-service Bachelor of Education (Technology) Teachers' Perceptions on Instructional Supervision in Relation to Classroom Interactions

	SS	Df	MS	F	p
Between groups	530.457	2	265.228	1.499	.230
Within groups	12387.598	70	176.966		
Total	12918.055	72			

There is no statistically significant difference between pre-service Bachelor of Education (Science) degree teachers' perceptions on instructional supervision in relation to classroom interactions in National, County and Sub County secondary schools ($F(2, 70)= 1.499$, $p=.230$, $MSerror = 176.966$, $\alpha=.05$).

DISCUSSION

The study established that there is no statistical significant difference between pre-service Bachelor of Education (Technology) degree teachers' perceptions on instructional supervision in relation to preparation and planning for teaching and learning in National, County and Sub County secondary schools. This means that pre-service Bachelor of Education (Technology) graduate teachers have positive perceptions about instructional supervision in relation to preparation and planning for teaching in schools.

The study also established that there is no statistical significant difference between pre-service Bachelor of Education (Technology) degree teachers' perceptions on instructional supervision in relation to classroom interactions in National, County and Sub County secondary schools. It is evident that pre-service graduate teachers have positive perceptions about instructional supervision in relation to classroom interactions in schools.

The findings appear to support other studies focusing on trainee teachers' experiences during teaching practice (Inyega & Inyega, 2017). They are also in agreement with other studies on supervision of pre-service teachers during teaching practice in which pre-service teachers are able to identify their strengths and weakness [i]. Preparation, guidance, and well-coordinated pre-service teacher supervision under similar conditions appear to be effective in development of positive perceptions among teacher trainees regardless of the school they teach.

CONCLUSION

The findings indicate that pre-service teachers appear not to have different perceptions about instructional supervision in relation to preparation and planning for teaching regardless of the category of schools taught during their internship while on teaching practice. The teachers have positive perceptions about instructional supervision in relation to preparation and planning for teaching, and classroom interactions. The findings suggest that pre-service Bachelor of Education (Technology) graduate teacher preparation at the University of Nairobi, a leading university in Kenya, exposes trainees to teaching preparation and planning in same environment.

The findings have implications on pre-service teacher education in preparing teachers to hold positive perceptions about instructional supervision in their specialist knowledge areas.

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