

# Influence of Pedagogical Content Knowledge on Teacher Trainee Professional Competency at University of Nairobi, Kenya

*American Journal of Education and Learning*

Vol. 5, No. 1, 1-12, 2020

e-ISSN:2518-6647



Corresponding Author

**Ganira Khavugwi Lilian**<sup>1</sup>

**Odundo Paul Amollo**<sup>2</sup>

<sup>1,2</sup>Department of Educational Communication and Technology, University of Nairobi, Kenya.

<sup>1</sup>Email: [kganira@yahoo.com](mailto:kganira@yahoo.com) Tel: +254721451538

<sup>2</sup>Email: [odundopaul@yahoo.com](mailto:odundopaul@yahoo.com) Tel: +254722761414

## ABSTRACT

Teaching as a knowledge-based profession requires pedagogical content knowledge for problem-solving, decision making, class management and sensitivity for adapting to diverse needs of learners. Whereas teacher knowledge is absolutely a component of professionalism, pedagogical content knowledge contributes to mastery of teaching, self-regulation and cognitive abilities for professional competence. Further, pedagogical content knowledge assists teacher trainees to; reflect on experiences; express insights about anticipated practice and develop appropriate ways of communicating during instructional delivery. This study explored influence of pedagogical content knowledge and teaching practice assessment process at the University of Nairobi. Anchored on descriptive survey design, the study targeted 68 trainee teachers on teaching practice from 17 Counties sampled randomly. The study used interview schedules, observation guides and documentary analysis to collect data from trainee teachers. For data analysis, the study relied on descriptive and inferential statistics, with data presented using tables. The study results found inconsistencies in the manner in which teacher trainees prepared for teaching practice. Recommendations advocate for teacher educators to re-examine appropriate preparation approaches that can assist teachers to prepare effectively for instructional management. Further, the University of Nairobi should explore appropriate and reliable mechanisms for sustaining and financing teaching practice process in order to achieve professional competence.

**Keywords:** *Content, knowledge, Pedagogical knowledge, Preparation, Teacher trainee, Professional competence.*

**DOI:** 10.20448/804.5.1.1.12

**Citation |** Ganira Khavugwi Lilian; Odundo Paul Amollo (2020). Influence of Pedagogical Content Knowledge on Teacher Trainee Professional Competency at University of Nairobi, Kenya. *American Journal of Education and Learning*, 5(1): 1-12.

**Copyright:** This work is licensed under a [Creative Commons Attribution 3.0 License](https://creativecommons.org/licenses/by/3.0/)

**Funding:** This study received no specific financial support.

**Competing Interests:** The authors declare that they have no competing interests.

**History:** Received: 22 July 2019/ Revised: 27 August 2019/ Accepted: 30 September 2019/ Published: 7 November 2019

**Publisher:** Online Science Publishing

### Highlights of this paper

- This study explored influence of pedagogical content knowledge and teaching practice assessment process at the University of Nairobi.
- The study used interview schedules, observation guides and documentary analysis to collect data from trainee teachers.
- The study results found inconsistencies in the manner in which teacher trainees prepared for teaching practice.

## 1. INTRODUCTION

Pedagogical content knowledge provides multiple representation and explanations for considering how themes are organized and tailored towards diverse interests and abilities of learners. This is anchored on conceptualization of content, values and beliefs that teachers exploit for instructional preparation and management. Shulman (1987) introduced pedagogical content knowledge as a way of representing and formulating subject-matter knowledge for facilitating learning. When adopted effectively, pedagogical content knowledge enables teacher trainees to expand on skills in peer support and acknowledge different viewpoints, which in turn support development of appropriate strategies for class management and integration of theory to actual teaching. Drawing from Shulman (1987) perspective, Darling-Hammond (2009) indicates that pedagogical content knowledge emphasizes teacher's familiarity with subject matter, awareness of learner characteristics and facilitation of productive class discussions. To achieve this, teacher trainees need to conceptualise pedagogical content knowledge through maximizing quantity of instructional time, handling class events appropriately, creating clear directions in lessons and creating effective teaching environments for all learners. Mastery of pedagogical content knowledge allows teacher trainees to consider methods that reflect on learning objectives, content taught, instructional methods applied, teaching/learning resources and learner characteristics which nurture professional competence. In support of this position, Ganira *et al.* (2019) assert that pedagogical content knowledge assists teachers in adopting motivational pathways, mastery of teaching and learning, selection of instructional resources and decision making for effective learning. This is founded on the premise that teacher educators and policy makers are concerned with quality and preparation of teacher trainees' professional growth towards competency based instruction which emphasizes development of skills, knowledge and values consistent with the 21<sup>st</sup> century skills.

Despite influence of pedagogical content knowledge in teacher professional programmes, there is inadequate literature on its impact on planning, introduction and development of lessons during class instruction. In this regard, Hidson *et al.* (2018) raises concerns about teachers' inadequate skills in connecting with new programmes of study and insufficient access to appropriate professional development which influences lesson planning activities. With inadequate pedagogical content knowledge, teacher trainees may develop misconceptions on subject matter which tends to influence lesson planning, introduction and development. This is in line with Ganira and Odundo (2017) who affirms that misconceptions in content knowledge inhibit conceptual development which in turn hinder procedures for instructional management. In cases where interpretations of specific pedagogical knowledge are developed by trainee teachers with focus on appropriate lesson planning, introduction and instructional management, there are high chances of nurturing professional growth. Development in professional competence would assist teacher trainees in applying pedagogical knowledge in selecting appropriate content for linking theories of learning to practice teaching in real class situations. However, Muhlise (2018) notes that with insufficient pedagogical content knowledge, trainee teachers develop deficits in instructional processes which negate sequential delivery of lesson in class. Based on this realization, the study explored influence of pedagogical content knowledge on professional competence at the University of Nairobi.

Teacher development programme at the University of Nairobi advocates for professional competency through continuing awareness and provision of equitable, relevant and efficient quality training to sustain knowledge based economy (Genvieve, 2017). This is in accordance with the government's education for all (2013) framework that defines effective training anchored on professional competence in all learning institutions. Through standardization of teacher professional proficiency, Ganira and Odundo (2017) indicates that the University of Nairobi acknowledges professional competence through sustainable pool of highly trained human resource capital with emphasis on the nations' ambition of creating a knowledge based economy. Further, Kenya's *Vision 2030* recognizes the need for reforms in University education sector with prominence on linkage between pedagogical content knowledge and competency based skills for problem solving, decision making and creativity. In instances where competency based skills are adopted effectively, teacher trainees are likely to adopt efficient planning, introduction and development of lessons which in turn accelerates confidence in instructional management. In support of this position, the Commission for University Education (CUE) which is a regulatory government agent established by Act of parliament No. 42 of 2012 and revised in 2016 advocates for access to sustainable quality standards for professional development. Quality standards for trainee teachers may be achieved through appropriate training, planning, coordination, resource mobilization, teamwork, integrity and responsiveness for upholding professional competence. Based on this background, the study examined effectiveness of teacher trainee competence in lesson planning, introduction and development of instructional management during teaching practice at the University of Nairobi.

### *1.1. Pedagogical Content Knowledge and Lesson Planning*

A lesson plan is a brief and designed structure which provides framework and direction for effective teaching and learning. According to Sakamoto (2012) lesson planning is a resourceful and indispensable component of the teaching process which changes overtime as teacher trainees familiarize with instructional management. Appropriately sequenced lesson plans should be in concurrence with; schemes of work, objectives, learning activities, time estimate and instructional resources for benefiting both the teacher trainee and learners. This is because a lesson plan influences teacher trainee's planning of tasks to be presented, what to teach, how to teach, resources required for pacing the instruction to meet learner needs. Before planning for lessons, Reed and Michaud (2010) observes that trainee teachers simplify the learning outcome which assists in maintaining standard teaching pattern without deviating from the content. Further, Caires *et al.* (2012) points out that an effective lesson plan saves teacher trainees from haphazard teaching, stimulates introduction of critical questions and illustrations, which encourages continuity in the learning process. This gives the teacher trainee confidence when delivering the lesson and influence positive attitudes of learners for reducing indiscipline and monotony.

At the University of Nairobi, considerate amount of time is dedicated to educating teacher trainees on lesson planning which lays the foundation for instructional management and professional competence. The lesson plan format is standardized and serves as a guide in preparing teacher trainees for planning for systematic delivery of content. However, though lesson plan serves as a check list that guides orderly delivery of lessons, Odundo *et al.* (2018) found inconsistencies in ways in which teacher trainees plan for lessons at the University of Nairobi. Inconsistencies in lesson planning create a dilemma for teacher trainees in expectations from both the university assessors and professional requirements. Inappropriate lesson planning leads to over dependence on textbooks, inconsistency in delivery of lessons, inadequate transition and under utilization of learning resources. Mahmud (2010) in a study of Malaysian student teachers' lesson planning affirms that student teachers experience difficulty in planning sequence, writing a rationale goal and objectives, formulating learning activities and sourcing for

appropriate resources. Further still, in a study on integrating theory and practice, [Allen and Wright \(2014\)](#) indicates that difficulties encountered by teacher trainees emanate from low level of content knowledge, inappropriate interactive skills and inadequate structured class routines. Drawing from these concerns, university assessors should provide support, guidance and create collaborations with teacher trainees in developing appropriate lesson plans which contribute to effective instructional management and professional competence.

### *1.2. Pedagogical Content Knowledge and Lesson Introduction*

Appropriate lesson introduction provides teachers with firm foundation for capturing learner attention and excitement through tailoring course experience to heighten the learning process. This is in concurrence with [Nahid and Ahmmadreza \(2017\)](#) who states the critical part of a lesson occurs in the introduction which should be stimulating in order to arrest learner concentration. When the introduction engages learners right away, they are more likely to pay attention, open up to creative thinking, get motivated and develop enthusiasm for learning. On the other hand, when the introduction is dull, learners get disinterested and this may result in indiscipline challenges. In support of this argument, in a study on development of lesson plans, [Nuchanart et al. \(2014\)](#) observed that ensuring learners develop an active role during class instruction is dependent on the personality of the teacher during lesson introduction. Though learners may be enthusiastic about learning, [Thompson \(2015\)](#) stresses that an introduction that is inspiring, challenging, stimulating and motivating assist the teacher in achieving realistic expectations. Such expectations would enhance learner participation in improving problem and communication skills which in turn assist teachers to account for learning achievement.

In a study on influence of classroom and school climate, [Lindsey et al. \(2014\)](#) argues that teachers who fail to identify learners by name develop inappropriate relationships which contribute to destructive feedback thereby obstructing the instructional process. This according to [Marion-Howard and Lisa \(2016\)](#) creates a mismatch between intentions of the teacher and learner experiences which weaken achievement of intended goals. In an effort to address this concern, learning activities should be developed on past experiences for learners to engage in active, constructive, intentional and meaningful knowledge acquisition. Hence, [Lajos \(2017\)](#) contents that activities that involve learner interaction with content include short stories, songs, poems or question and answer technique for stimulating attention in the learning process. However, [Peter \(2017\)](#) affirms that passive formats, inadequate content knowledge and disconnections from learner's needs result from inefficient novice teachers. Again, [Odundo et al. \(2018\)](#) posits that teacher trainees analyse and evaluate specific learning experiences together with contextual and situational factors without connecting learnt content to the teaching-learning process which results in lower learning outcomes. Based on these observations, teacher trainees should create opportunities for learners to express themselves through appropriate adoption of statement of topic, learner experiences and motivation skills for igniting internal drive for learning.

### *1.3. Pedagogical Content Knowledge and Instructional Management*

Effective teachers demonstrate thorough pedagogical knowledge of content and skills which inspire learners to develop enthusiasm for learning. This is anchored on treatment and sequence of content, appropriate instructional methods and effective learner involvement in the learning process. As noted by [Bjuland and Mosvold \(2015\)](#) in a study on lesson in teacher education, sequencing lessons allows teachers to move on to more advanced tasks enthusiastically since they are already planned for. Planning for instructional management allows the teacher to identify learning goals, avoid inconsistencies in content delivery by providing learners with a pattern of relationships so that each activity has a distinct function. In support of this argument, [Depaeppe et al. \(2013\)](#) notes

that appropriate sequencing and structuring of activities ensures that learning results in change in behaviour. When the lesson development is carefully sequenced, duplication is avoided which makes it uncomplicated for effective instructional management. This position is supported by [Ganira \*et al.\* \(2018\)](#) who affirms that use of effective teaching methods are dependent on pedagogical content knowledge for serving learner interests and encouraging responsibility and creativity. This requires knowledge of representing content in pedagogically appropriate methods for encouraging unique professional competence.

[Fujii \(2014\)](#) contends that though effective instructional development is dependent on pedagogical knowledge, teachers plan lessons with the aim of covering content, without clear understanding of sequence for propelling achievement of set goals. In addition, [Bayram \*et al.\* \(2016\)](#) asserts that inadequacies in instructional process emanate from reprehensible lesson development process ranging from failure to establish the authority in class and compensating it with cruel language towards learners. Failure to establish authority in class ignites disruptive behaviour, interference with teaching/learning activities which hinders professional competence. This in agreement with [Zirpoli \(2013\)](#) who found out that teachers with inadequate abilities in instructional management tend to criticize and scold learners, provide ineffective evaluation, discipline by violence, and exercise authoritarian leadership which weaken professional growth. In this regard, teacher trainees require adequate preparation reflecting proficiency in pedagogical knowledge for transfer of content with effective communication skills, confidence and class management ability for sustaining effective teaching. As suggested by [Odundo \*et al.\* \(2018\)](#) effective instructional management requires passion and effort for trainee teachers to sacrifice time in preparation along with appropriate methodological approaches for nurturing professional competence.

## **2. STATEMENT OF THE PROBLEM**

Teaching practice is an essential element of teacher preparation where trainees integrate theory learnt in coursework with practice to develop professional competence. This period assists teacher trainees in transforming perceptions about teaching through incorporating pedagogical skills into content proficiency. At the University of Nairobi, considerate amount of time is dedicated to educating teacher trainees on preparing for teaching practice by emphasising on skill in pedagogical content knowledge and planning which lays the foundation for instructional management and professional competence. However, teacher trainees experience challenges ranging from lesson planning, lesson introduction and development, mental planning and general instructional management which create a mismatch between theory and practice. This study examined influence of pedagogical content knowledge on teacher trainee preparedness for teaching practice at the University of Nairobi.

## **3. PURPOSE AND OBJECTIVES**

The purpose of this study is to examine influence of pedagogical content knowledge on teacher trainee preparedness for teaching practice at the University of Nairobi. The objective was to explore extent to which pedagogical content knowledge influence teacher trainees' lesson planning, introduction and instructional management at the University of Nairobi.

## **4. METHODOLOGY**

The study employed descriptive survey research design to explore influence of pedagogical content knowledge and appropriateness of teaching practice at the University of Nairobi. According to [Kombo and Tromp \(2009\)](#) descriptive survey design describe occurrences in their natural phenomenon. Description is conducted to influence improvement of a situation. In addition, [Orodho \*et al.\* \(2016\)](#) indicates that descriptive survey design describes

research questions, plan of the research and data analysis methods used to explain aspects of observable facts. The study randomly sampled 68 teacher trainees from University of Nairobi who were undertaking teaching practice within 17 Counties in Kenya. Data collection process took place in 17 Counties randomly selected by external moderators. Out of the 68 trainee teachers randomly sampled, 44 were males while 24 were females. To examine influence of pedagogical content knowledge on teaching practice, the study used interview schedules, observation guide and documentary analysis to collect data from trainee teachers. Interview schedules provided an effective understanding of how pedagogical content knowledge influences teaching practice. Observation guide was used to ascertain how trainee teachers apply pedagogical content knowledge in real class situations, while documentary guide were used to determine preparations of lesson plans. For data analysis the study used descriptive and inferential statistics. Specifically, frequencies and percentages were used in comparisons across categories. Ethical consent and confidentiality were upheld during data collection

## 5. CONCEPTUAL FRAMEWORK

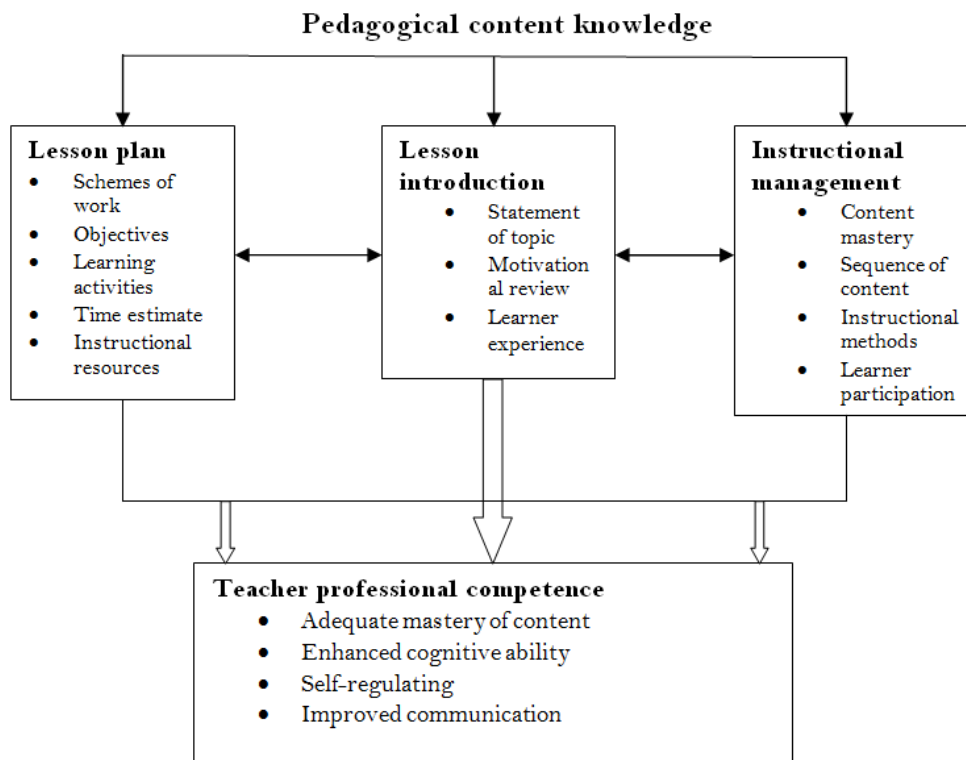


Figure-1. Conceptual frame work on pedagogical content knowledge and professional competence.

The conceptual framework was constructed to identify and describe relationships of key components within the study. As noted by Rogers (2012) a conceptual framework clarifies concepts and proposed relationships among variables for interpreting study findings. In this study, lesson planning was examined in concurrence with schemes of work, lesson objectives, learning activities time estimate for each activity and instructional resources. Further, lesson introduction was anchored on statement of topic, motivational review and learner experiences. Lastly, instructional management were depended on mastery of content, sequence of content, instructional methods and learner feedback. In instances where teacher trainees prepare effectively for teaching practice, there are high chances of developing enhanced mastery of content, improved cognitive abilities and self-regulating skills for nurturing professional competence.

## **6. THEORETICAL PERSPECTIVE**

Theories of teacher development embrace both cognitive and social perspectives of learning which supports professional competency as a foundation for linking theory and practice. Based on this realization, the study was anchored on social learning [Bandura \(1977\)](#) which provides a conceptual perspective that assimilates both cognitive and social aspects of learning. According to [Bandura \(1977\)](#) learning occurs within social situations and contexts through observation, imitation and modelling of behaviour. Drawing from [Bandura \(1977\)](#), [Mustafa \(2005\)](#) posited that social learning theory enables teachers to provide knowledge-based environment where learners can observe, model behaviour and develop change in attitude and emotional reactions towards others. In this regard, teachers who prepare effectively for teaching and display appropriate instructional practices influence learning outcomes. Demonstrating appropriate knowledge of content enhances self-regulation, confidence, effective communicate and arouses participation which in turn assists learners in modelling new behaviours. On the other hand as noted by [Zirpoli \(2013\)](#) teachers with inadequate content knowledge tend to be dull, criticize and scolds learners, provide ineffective evaluation, discipline by violence, and exercise authoritarian leadership which weaken professional growth. Under such circumstances, learners become disinterested in learning process which may lead to indiscipline as well as modelling of inappropriate behaviour. For this reason, teachers require mastery of pedagogical content knowledge for integrating information derived from course work to practical instructional management through effective preparation, lesson introduction and development, sequence of content and utilization of resources for nurturing professional competence.

As noted by [Ganira and Odundo \(2017\)](#), for effective instructional management teacher trainees require thorough knowledge of the content and teaching techniques anchored on relevant learning outcomes. Comprehensive knowledge of the course would enable trainee teachers to effectively navigate through the instructional process to achieve learning outcomes. As much as [Bandura \(1977\)](#) emphasized that learning takes place in the social environment, [Hoaglund et al. \(2014\)](#) opines that teacher trainees experience nervousness between the university and school setting which is illustrated as two world's drawback. In such circumstances, [Hoaglund et al. \(2014\)](#) notes that teacher trainees find themselves torn between college requirements that assign grades and school that structure their first teaching experiences thereby creating a mismatch between the two worlds. Still on the same vein, [Gallant and Mayer \(2012\)](#) affirms that discrepancy between planning for instructions which teacher trainees receive and the way preparation is structured in placement schools creates a dilemma in meeting expectations of both the university assessor and the teacher. Based on this realization, there is dire need for trainee teachers to contribute to collective knowledge of the profession through educational research focusing on continuous professional competency and innovation in practicing teaching.

## **7. STUDY FINDINGS AND DISCUSSION**

The study sought to determine extent to which pedagogical content knowledge influence planning of lessons, introduction and instructional management for teacher trainees during teaching practice at the University of Nairobi. Findings are show in [Table 1,2](#) and [3](#).

### **7.1. Lesson Plan**

Appropriately sequenced lesson plan is in concurrence with schemes of work, objectives, learning activities, time estimate and instructional resources for benefiting both the teacher trainee and learners. Teacher trainees' were interviewed, lessons observed in class and professional documents were checked to determine effectiveness of pedagogical content knowledge during teaching practice assessment. Findings are shown in [Table 1](#).

Table-1. Lesson plan layout.

Item	Frequency	Percentage
Concurrence with schemes	25	36.8
Concurrence with objectives	19	27.9
Appropriate learning activities	09	13.2
Adequacy of instructional resources	11	16.2
Adherence to time estimate	04	5.9
Total	68	100

Source: Field data 2018.

The study focused on determining whether lesson plans were in concurrence with schemes of work, objectives, learning activities, time estimate and instructional resources. The study findings from Table 1 revealed that out of 68 trainee teachers sampled, those whose lesson plans concurred with schemes of work were 25(36.8) while 19(29.9) had lesson plans in concurrence with objectives. Trainee teachers with appropriate learning activities were 9(13.2) and 11(16.2) used adequate instructional resources while 4(5.9) adhered to time estimate. It was evident from the findings that majority 25(36.8) trainee teachers' lesson plans concurred with schemes of work as noted by Caires *et al.* (2012) who indicated that an effective lesson plan saves teacher trainees from haphazard teaching, stimulates introduction of critical questions and illustrations for encouraging continuity in the learning process. However, trainee teachers acknowledged that they experienced challenges in formulating measurable learning outcomes which was attributed to inadequate knowledge of content received during course work. This finding corroborates with Allen and Wright (2014) who affirms that challenges encountered by teacher trainees emanate from low level of content knowledge, inappropriate interactive skills and inadequate structured class routines.

Howener, during an interview the trainee teachers felt that they were adequately prepared for lesson planning during course work. Appropriate preparing assisted them to draw lesson plans which was further proved from the observation and documents availed by the trainee teachers. This finding confirms Reed and Michaud (2010) affirmation that before planning a lesson, trainee teachers simplify the learning outcome which assists in maintaining a standard teaching pattern without deviating from the content. With further probing, one trainee teacher said:

*The previous comments I received from my assessor influenced improvement in planning. My supervisor recognized I had not used the correct format of planning and took time to explain what is expected. I have really improved on palnning in preparation for the next assessment and this has increased my confidence. Even on use of instructional resources, I think I will bring in class real materials to make the learning interesting and different from the ones observed earlier.*

### 7.2. Lesson Introduction

Lesson introduction provides teachers with firm foundation for capturing learners' attention and excitement through tailoring the course experience to heighten the learning process. The study sought to examine effectiveness of pedagogical content knowledge in lesson presentation among trainee teachers during teaching practice as shown in Table 2.

Table-2. Lesson introduction.

Item	Frequency	Percentage
Statement of topic	29	42.6
Motivated learners	18	26.5
Used learner experiences	21	30.8
Total	68	100

Source: Field data 2018.

From the study findings in [Table 2](#), majority of trainee teachers 29(42.6%) used statement of topic in introducing lessons by relating content to the expected learning outcome which generated learner responses. In using statement of topic, the trainee teacher elicited what learners already recognized about the content before presenting new information. This is in concurrence with the assertion of [Nahid and Ahmmadreza \(2017\)](#) who emphasized that the most significant part of lesson presentation occurs in the introduction which should be stimulating to arouse learner interest. Further, out of 68 trainee teachers, 18 (26.5%) motivated learners through use of short stories which encouraged learners to get fascinated in connecting with the lesson. These trainee teachers were confident and used appropriate voice projection with effective communication skills and clear instructions which attracted enthusiasm from learners. During an interview with one of the trainee teachers, he had this to say:

*My supervisor really influenced my lesson introduction, I got it wrong from the start but now, I understand the stages effectively. The supervisor took me through lesson introduction and how I should raise learner interest for effective concentration and this has worked for my advantage. Earlier on I had no confidence and my lessons were very boring.*

This finding is in concurrence with [Nuchanart et al. \(2014\)](#) observation that ensuring learners develop an active role during class instruction is dependent on the teacher’s skills during lesson introduction. Finally, 21(30.1%) of trainee teachers used learner past experiences through review of the previous topic using question and answer technique which stimulated learner attention. By use of question and answer techniques trainee teacher elicited learner participation which in turn facilitated effective communication in class. [Thompson \(2015\)](#) affirmed that though learners may be enthusiastic about learning, this can be achieved through an introduction that is inspiring, challenging, stimulating and motivating.

### 7.3. Instructional Management

Effective teachers have a thorough pedagogical knowledge of content and skills which inspire learners to develop affection for learning. This is anchored on treatment and sequence of content, appropriate instructional methods and effective learner involvement in the learning process as indicated in [Table 3](#).

**Table-3. Instructional management.**

Item	Frequency	Percentage
Content mastery	14	36.8
Content sequence	11	16.1
Varied instructional methods	7	10.2
Learner involvement	15	22.1
Achievement of objectives	9	13.2
Checks class work	4	5.9
Addressed learner by name	8	11.8
Total	68	100

Source: Field data 2018.

The study analysis in [Table 3](#) indicate that out of 68 trainee teachers used, 14(36.8) had adequate mastery of content and 11(16.8) delivered content sequentially which assisted in avoiding inconsistencies in the lesson instruction. This position is supported by [Ganira et al. \(2018\)](#) affirmation that use of effective teaching methods are dependent on pedagogical content knowledge for serving learner interests and encourage responsibility and creativity. Further, 7(10.2) of trainee teachers used varied instructional approaches while 15(22.1) involved learners in the learning process by providing a pattern of relationships so that each activity has a distinct function. In corroboration with this finding, [Depaepe et al. \(2013\)](#) noted that proper sequencing and structuring activities ensures that learning objectives are achieved.

Further analysis from Table 3 revealed that 9(13.2) of trainee teachers' objectives were achieved, 4(5.9) checked learners' class work and 8(11.8) called learners by name. The fact only few trainee teachers achieved stated objectives, checked learners' work and addressed them by name could be an indication that they did not adequately prepare for teaching practice which in turn influence professional competence. In addition, Bayram *et al.* (2016) affirmed that inadequacies in instructional process emanate from improper lesson development process ranging from failure to establish the authority in class and compensating it with cruel language. In one rare instance, a teacher trainee said:

*The earlier supervisor's comments really discouraged me, but after debrief, I acknowledged my errors and am ready to correct and improve on my short comings. I came to realize that the supervisor meant well, I am now encouraged and will improve on my teaching to include all the areas highlighted by the supervisor in particular, in learner involvement, checking class work and in addressing learners by name.*

## 8. CONCLUSION

The study results found inconsistencies in the manner in which teacher trainees prepared for teaching practice at the University of Nairobi. In regard to lesson planning, 19(29.9) of trainee teachers' lesson plans concurred with objectives, 9(13.2) had appropriate learning activities, 11(16.2) used adequate instructional resources while 4(5.9) adhered to time estimate. This suggests that trainee teacher were not adequately prepared on proper layout of developing an effective lesson plan during course work.

Secondly, majority of trainee teachers, 29(42.6%) used statement of topic in introducing lessons by relating content to the expected learning outcome which generated learner responses. This was closely followed by 21(30.8%) used learner experience through review of the previous topic by of question and answer technique which stimulated learner attention. Further, 18(26.5%) motivated learners with appropriate lesson introductions, that encouraged learners' to pay attention.

Lastly, out of 68 trainee teachers, 14(36.8) had adequate mastery of content and 11(16.8) delivered content sequentially, only 7(10.2) used varied instructional methods, 15(22.1) involved learners in the lesson and 9(13.2) achieved set objectives. These findings show that though at the University of Nairobi, considerate amount of time is dedicated to educating teacher trainees on preparing for teaching practice by emphasising on skill in pedagogical content knowledge and planning which lays the foundation for instructional management, disconnections exist between course work, and real class instructional process.

## 9. RECOMMENDATIONS

- For practice the study recommends that teacher educators re-examine appropriate preparation approaches that can assist teachers to prepare effectively for instructional management. Further, the University of Nairobi should explore appropriate and reliable mechanisms for sustaining and financing teaching practice process in order to achieve professional competence.
- For policy, teacher development programme at the University of Nairobi which advocates for professional competency through continuing awareness and provision of equitable, relevant and efficient quality training to sustain knowledge based economy should be strictly adhered to and effectively implemented.
- Finally the study recommends for further research on influence of pedagogical content knowledge in preparation for teaching practice focussing on lesson plans, lesson development and instructional management.

## REFERENCES

- Allen, J.M. and S.E. Wright, 2014. Integrating theory and practice in the pre-service teacher education practicum. *Teachers and Teaching*, 20(2): 136-151. Available at: <https://doi.org/10.1080/13540602.2013.848568>.
- Bandura, A., 1977. *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bayram, Ö., İ. Gelen, S.H. Alkan, G. Çınar and V. Duran, 2016. The most common mistakes of teacher trainees' former teachers. *Universal Journal of Educational Research*, 4(5): 963-972. Available at: <https://doi.org/10.13189/ujer.2016.040505>.
- Bjuland, R. and R. Mosvold, 2015. Lesson study in teacher education: Learning from a challenging case. *Teaching and Teacher Education*, 52: 83-90. Available at: <https://doi.org/10.1016/j.tate.2015.09.005>.
- Caires, S., L. Almeida and D. Vieira, 2012. Becoming a teacher: Student teachers' experiences and perceptions about teaching practice. *European Journal of Teacher Education*, 35(2): 163-178. Available at: <https://doi.org/10.1080/02619768.2011.643395>.
- Darling-Hammond, L., 2009. *The flat world and education: How America's commitment to equity will determine our future*. New York: Teachers' College Press.
- Depaepe, F., L. Verschaffel and G. Kelchtermans, 2013. Pedagogical content knowledge of the mathematics that teachers need to know. *Educational Studies in Mathematics*, 61(30): 293-319.
- Fujii, T., 2014. Implementing Japanese lesson study in foreign countries: Misconceptions revealed. *Mathematics Teacher Education and Development*, 16(1): 65-83.
- Gallant, A. and D. Mayer, 2012. Teacher performance assessment in teacher education: An example in Malaysia. *Journal of Education for Teaching*, 38(3): 295-307. Available at: <https://doi.org/10.1080/02607476.2012.668330>.
- Ganira, K.L. and P. Odundo, 2017. Influence of teacher's knowledge of content on effective use of inquiry-based approach in teaching preschool science in Migori county, Kenya. *Donnish Journal of Educational Research and Reviews*, 4(1): 1-7.
- Ganira, K.L., P.A. Odundo, J.C. Gatumu and J.N. Muasya, 2018. Relevance of social studies curriculum content for enhancing responsibility among preschool children in Nairobi county, Kenya. *Journal of Education and Training*, 5(2): 205-220. Available at: <https://doi.org/10.5296/jet.v5i2.13613>.
- Ganira, K.L., P.A. Odundo, J.C. Gatumu and J.N. Muasya, 2019. Social studies curriculum and cooperation among preschool learners in Nairobi county, Kenya: Addressing effectiveness of instructional methods. *American Journal of Social Sciences and Humanities*, 4(1): 86-97. Available at: <https://doi.org/10.20448/801.41.86.97>.
- Genieve, N., 2017. Preparation of teacher-trainees in pedagogy in Kenyan universities. *Journal of Education and Practice*, 8(13): 28-34.
- Hidson, Elizabeth and Frances, 2018. Challenges to pedagogical content knowledge in lesson planning during curriculum transition: A multiple case study of teachers of ICT and computing in England. Doctoral Thesis, Durham University.
- Hoaglund, A., K. Birkenfeld and J. Box, 2014. Professional learning communities: Creating a foundation for collaboration skills in pre-service teachers. *Education*, 134(4): 521-528.
- Kombo, K.D. and A.L.D. Tromp, 2009. *Thesis writing: An introduction*. Nairobi: Pauline's Publication.
- Lajos, G., 2017. Teacher personality: A review of psychological research and guidelines for a more comprehensive theory in educational psychology. *Open Review of Educational Research*, 4(1): 75-95. Available at: <https://doi.org/10.1080/23265507.2017.1339572>.
- Lindsey, M.B.O., C.P. Bradshaw and M.J. Furlong, 2014. Influence of classroom and school climate on teacher perceptions of student problem behavior. *School Mental Health*, 6(2): 125-136. Available at: <https://doi.org/10.1007/s12310-014-9118-8>.
- Mahmud, N., 2010. *Learning to plan: An investigation of Malaysian student teachers' lesson planning during their practicum*. Unpublished PhD Thesis. The University of East Anglia, Malaysia.

- Marion-Howard and M. Lisa, 2016. Connect the disconnected: Enhance teaching and learning with an implementation of culturally responsive lesson planning practices which improves instructional school climate and accountability data. Dissertations. Paper.No. 177.
- Muhlise, C.O., 2018. Investigating the challenges of pedagogical content knowledge through think aloud protocols and finding solutions through feedback practices. *International Journal of Educational Studies*, 5(1): 27-41.
- Mustafa, K., 2005. Implications of learning theories for effective technology integration and pre-service teacher training: A critical literature review. *Journal of Turkish Science Education*, 2(1): 1-17.
- Nahid, S.B. and N. Ahmmadreza, 2017. Effective teaching methods in higher education: Requirements and barriers. *Journal of Advances in Medical Education and Professionalism*, 4(40): 170-178.
- Nuchanart, N., I. Passara and S. Pilunthana, 2014. Development of the lesson study approach for the 6th grade students in social study subject based on open approach innovation. *Procedia- Social and Behavioural Sciences*, 116: 1411-1415. Available at: <https://doi.org/10.1016/j.sbspro.2014.01.407>.
- Odundo, P.A., G.W. Kinyua and K.L. Ganira, 2018. Work-based learning, procedural knowledge and teacher trainee preparedness towards teaching practice at the university of Nairobi, Kenya. *International Journal of Learning, Teaching and Educational Research*, 17(3): 96-110. Available at: <https://doi.org/10.26803/ijlter.17.3.8>.
- Orodho, J.A., W. Nzabirwa, P.A. Odundo, P.W. Ndirangu and I. Ndayambaji, 2016. *Qualitative and quantitative research methods in education and social sciences: A step by step guide to scholarly excellence*. First Edition; Kaneza Publishers & Enter Prises Nairobi, Kenya.
- Peter, W., 2017. Critical relationships between teachers and learners of school mathematics. *Pedagogy, Culture & Society*, 25(4): 515-530. Available at: <https://doi.org/10.1080/14681366.2017.1285345>.
- Reed, M. and C. Michaud, 2010. *Goal- driven lesson planning for teaching English to speakers of other languages*. Ann Arbor, USA: The University of Michigan Press. (Henceforth, R&M).
- Rogers, J., 2012. The importance of a conceptual framework in research with children and young people in foster care. Paper Presented at European Scientific Association on Residential and Family Care for Children and Adolescents. 12th World Conference. Glasgow. UK United Kingdom.
- Sakamoto, B.H., 2012. How important is lesson planning? – Barbara Sakamoto.iTDi for teachers by teachers. Available from <http://itdi.pro/blog/2015/05/28/how-important-is-lesson-planning-barbara-sakamoto/> [Accessed November 9, 12].
- Shulman, L., 1987. Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1): 1-23. Available at: <https://doi.org/10.17763/haer.57.1.j463w79r56455411>.
- Thompson, J.G., 2015. How to create a culturally responsive classroom. *NEA Today*, 56.
- Zirpoli, T.J., 2013. *Behaviour management: Applications for teachers*. Pearson New International Edition. 6th Edn., USA: Pearson.

**Online Science Publishing** is not responsible or answerable for any loss, damage or liability, etc. caused in relation to/arising out of the use of the content. Any queries should be directed to the corresponding author of the article.