# Tutors' Instructional Approaches and Students' Learning Outcomes in Teacher Training Institutions in Northern Uganda.

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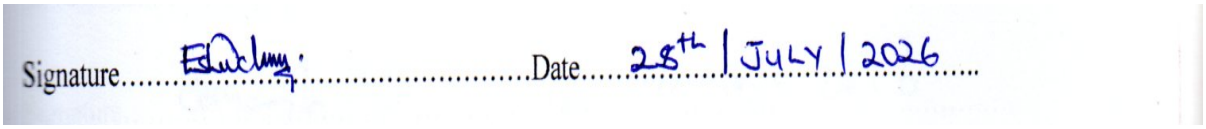
A Dissertation Submitted to the Directorate of Research and Graduate Training in Partial Fulfillment of the Requirements for the Award of a degree of Master of Education in Education Management, Planning and Administration of Gulu University

August, 2026

Declaration

I Esther Lucy Ochola hereby declare that this research "*Tutor's instructional approaches and students' learning outcomes in teacher training institutions in northern Uganda*" is my original work and has not been submitted for any other degree or award. All sources of information and literature have been appropriately cited and acknowledged. I confirm that the data collected in this study were obtained ethically and with the informed consent of all participants.

This research is an independent work, and any opinions expressed are solely those of the author.

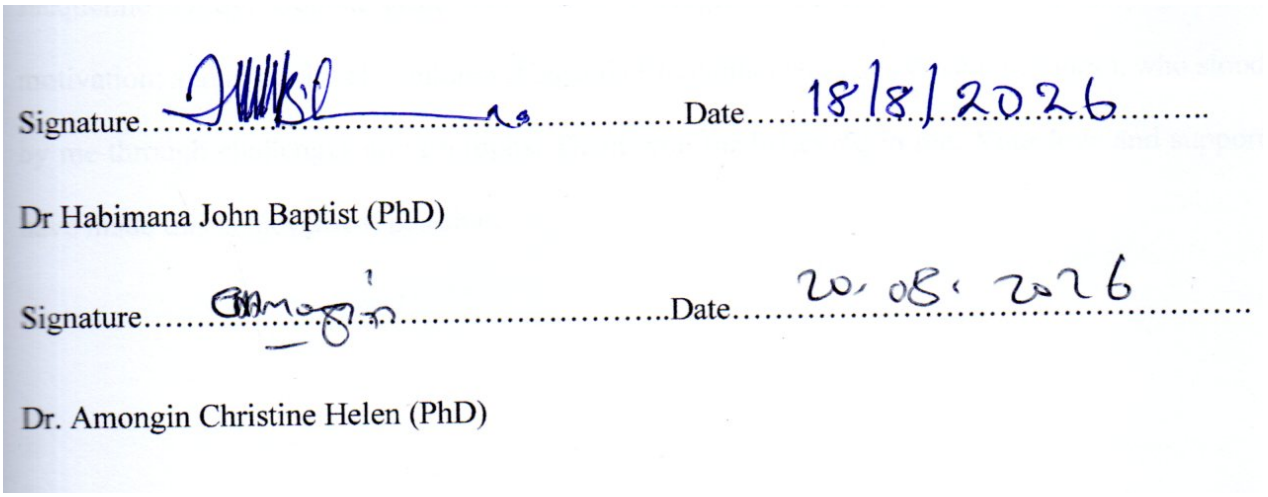



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Approval

This research "*Tutors instructional approaches on students' learning outcomes within teacher training institutions in northern Uganda*" was conducted in accordance with ethical guidelines and received the necessary approvals from the relevant authorities.



# Dedication

This work is dedicated to my family, whose unwavering support and encouragement have been my guiding light throughout this journey. To my parents (Rev. Richard Milton and Mrs. Rachel Ochola), for instilling in me the values of education and perseverance; to my siblings (Ochola Jacqueline Trudy, Ochola Isaac Timothy and Kagenda Gabriel atwoki), for their constant motivation; and to my lovely children (Kagenda Emmanuel and Kica Gracious Vincy), who stood by me through challenges and triumphs. Thank you for believing in me. Your love and support have made this achievement possible.

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Abstract

This study investigated the relationship between tutors' instructional approaches and student learning outcomes in Teachers' training institutes in Northern Uganda. Guided by Vygotsky's Social Constructivist Theory and Bandura's Social Learning Theory, specifically, examined the status of tutors instructional approaches in teacher training institutes in Northern Uganda, assessed the level of students learning outcomes in teacher training institutes in Northern Uganda and established the relationship between tutors instructional approaches and students learning outcomes in Teachers training institutes in Northern Uganda . A descriptive correlational survey design was adopted, collecting quantitative and qualitative data through structured questionnaires and observation checklists administered to college tutors and student teachers across the region. Findings for Research Question 1 revealed that the level of tutors' instructional approaches in Core PTCs was high (M = 3.24, SD = 0.42), demonstrating strong administrative preparation, curriculum alignment, and subject matter mastery, though active facilitation and educational technology integration remained moderately executed. Findings for Research Question 2 indicated that the level of student teachers' learning outcomes was also high (M = 3.18, SD = 0.39), characterized by strong cognitive content mastery, administrative planning skills, and professional ethics, alongside relative weaknesses in practical classroom differentiation and diagnostic formative feedback. Regarding Research Question 3, inferential analysis established a statistically significant, strong positive relationship between tutors' instructional approaches and student teachers' learning outcomes (r = .682$, p < .01). The study concludes that tutors' instructional methods serve as the primary behavioral and cognitive template for prospective educators, directly shaping their acquired classroom competencies. To sustain and improve these standards, it is recommended that the Ministry of Education and Sports and college leadership modernize ICT infrastructure, reduce class sizes, and implement continuous professional development targeting active facilitation, differentiated instruction, and technology-supported pedagogy for college tutors

# Chapter one

# Introduction

## 1.0 Overview

Teacher education is widely acknowledged as the foundational pillar of educational quality and national development, as no education system can rise above the competence of its instructional force (Ministry of Education and Sports (MoES, 2019). Under national teacher policy guidelines, tutors in Teacher Training Institutes (TTIs) are expected to transition away from traditional, teacher-centered "chalk-and-talk" delivery toward active, competence-based pedagogies such as micro-teaching, collaborative problem-solving, and continuous assessment that foster practical pedagogical skills and reflective thinking in prospective educators (Kyomuhendo & Kasule, 2017; MoES, 2019). However, a persistent disconnect remains between policy mandates and classroom practices in Teacher Training Institutes across Northern Uganda, where tutors frequently rely on lecture-heavy dictation driven by dense syllabi, large class sizes, and shortages of instructional materials ( Kasule, 2017). This reliance on passive instructional delivery restricts student teachers from developing critical classroom management capabilities, active instructional methods, and subject-matter mastery, directly impacting their performance during school practice and standardized examinations (Walker, 2019). Consequently, this study investigates the relationship between tutors' instructional approaches and students' learning outcomes in Teacher Training Institutes in Northern Uganda to generate empirical evidence needed to guide tutor professional development, instructional resourcing, and policy implementation

## 1.1 Background

### 1.1.1 Historical background

In Western educational history, the conceptualization of student learning outcomes in teacher preparation underwent a fundamental paradigm shift (Darling-Hammond, 2017). During the nineteenth and early twentieth centuries across Western Europe and North America, teacher education operated primarily under behaviorist transmission models (Shulman, 1986). Student learning outcomes were evaluated almost exclusively through rote recall, mastery of fixed subject content, and strict adherence to behavioral discipline routines (Shulman, 1986). However, late twentieth-century constructivist reforms redefined learning outcomes into multidimensional standards that encompass cognitive mastery, practical pedagogical execution, and reflective professional dispositions (Darling-Hammond, 2017).

Across Sub-Saharan Africa, teacher preparation standards were historically shaped by colonial administration objectives (UNESCO, 2015). Early institutional models prioritized basic literacy, numeracy, and procedural compliance over critical inquiry or reflective teaching (UNESCO, 2015). Following mid-twentieth-century independence movements, African nations rapidly expanded teacher education infrastructure to support broader national social and economic development (Akyeampong, 2003). Nevertheless, high-stakes examination systems and overcrowded institutions across the continent meant that student learning outcomes remained overwhelmingly evaluated through written theoretical tests rather than practical classroom execution (Akyeampong, 2003). In recent decades, continental frameworks have pushed for competence-based outcomes that directly align with Global Sustainable Development Goal 4 (UNESCO, 2015).

In the East African region, regional integration policies and educational quality initiatives sought to harmonize teacher education benchmarks across member states (East African Community [EAC], 2015). Historically, teacher colleges across Kenya, Tanzania, and Uganda relied heavily on centralized written examinations that incentivized surface-level rote learning (Hardman et al., 2012). Modern East African curriculum reforms emphasize active, competence-based learning outcomes that evaluate student teachers on academic subject knowledge, local teaching material generation, and student-centered pedagogy (Hardman et al., 2012).

In Uganda, student learning outcomes evolved through distinct legislative and policy eras (Ministry of Education and Sports [MoES], 2019). During the missionary and colonial era, learning outcomes were restricted to basic catechetical instruction, functional literacy, and moral discipline (Ssekamwa, 1997). Following independence, the 1963 Castle Commission introduced national academic standardization, defining student teacher success through centralized Grade II and Grade III certificate examinations alongside formal School Practice assessments (Castle, 1963). In the modern era, Kyambogo University and the Ministry of Education and Sports introduced the National Teacher Policy in 2019, explicitly codifying student learning outcomes into three core dimensions: cognitive achievement, pedagogical competence, and professional attitudes (Kyambogo University, 2018; MoES, 2019).

In Northern Uganda, the historical realization of national learning outcomes was severely compromised by decades of civil instability between the late 1970s and late 2000s (Ssenkusu, 2012). Destruction of college infrastructure, severe shortages of instructional tools, and large class sizes forced training institutions into a survival mode (Ssenkusu, 2012). Consequently, student learning outcomes were effectively reduced to theoretical memorization to ensure student teachers

passed centralized written examinations (Ssenkusu, 2012). In the contemporary post-conflict era, while national policy mandates holistic, competence-based outcomes, a persistent empirical gap remains as high-stakes exams and limited instructional resources continue to drive passive learning (Kyomuhendo & Kasule, 2017). This historical disconnect establishes the exact rationale for investigating how tutors' daily instructional approaches directly shape student teachers' learning outcomes in Northern Uganda today (Kyomuhendo & Kasule, 2017)

### 1.1.2 Theoretical background

The study was guided by The Framework For Teaching (FFT) model of Charlotte Danielson Backes (1996) and Hansen( 2015). The FFT serves as a comprehensive framework for evaluating and improving teacher effectiveness and is widely recognized in the field of education for its structured approach to enhancing teaching practices. The model is divided into four key domains: Planning and Preparation, Classroom Environment, Instruction, and Professional Responsibilities (Stratton, 2020). Each domain plays a crucial role in defining the various competencies that contribute to effective teaching and, ultimately, improved student outcomes.

The Planning and Preparation domain emphasizes the importance of creating a well-structured educational experience. It encompasses the teacher's ability to design coherent instructional plans that align with curriculum standards and learning objectives (Stratton, 2020). Effective planning requires teachers to understand their students' diverse needs, interests, and backgrounds, allowing for differentiated instruction that can engage all learners. In this domain, teachers are expected to demonstrate thorough knowledge of the subject matter, use appropriate instructional resources, and develop assessments that inform teaching practices. Research has shown that effective planning directly correlates with higher student achievement, as it lays the groundwork for successful instruction (Darling-Hammond, 2020).

The Classroom Environment domain refers to the creation of a supportive and inclusive atmosphere conducive to learning. This includes establishing clear expectations for behavior, fostering positive relationships among students, and promoting an environment of respect and collaboration (Stratton, 2020). A well-managed classroom environment encourages student engagement and minimizes disruptions, enabling teachers to focus on instruction. According to Walker-Arnold (2019), a positive classroom environment is critical for nurturing student confidence and motivation, which are essential components of effective learning. The teacher's role in cultivating this environment is pivotal; effective classroom management techniques can significantly impact student engagement and academic success.

The Instruction domain focuses on the actual teaching process and the methodologies employed to deliver content effectively. This includes a variety of instructional strategies that cater to different learning styles and abilities, such as direct instruction, collaborative learning, and the integration of technology. Teachers are encouraged to use formative assessments to gauge student understanding continuously and adjust their instruction accordingly. Effective instruction is characterized by clear communication, the ability to make complex concepts accessible, and fostering critical thinking among students (Poro, Amony, & Obong, 2019). Research indicates that teachers who excel in this domain can significantly enhance student learning outcomes.

Finally, the Professional Responsibilities domain emphasizes the ongoing commitment of educators to their own professional growth and ethical practice. This includes engaging in continuous professional development, collaborating with colleagues, and reflecting on one's teaching practices. Teachers are encouraged to seek feedback and participate in professional learning communities, which can enhance their effectiveness and contribute to a culture of shared learning (O'Shea, 2020). This domain underscores the idea that teaching is not a static profession;

rather, it requires a commitment to lifelong learning and adaptability to meet the evolving needs of students and educational standards.

In summary, the Framework for Teaching provides a comprehensive model that encompasses all aspects of effective teaching. By focusing on Planning and Preparation, Classroom Environment, Instruction, and Professional Responsibilities, educators can better understand their roles and improve their practices, ultimately leading to enhanced student learning outcomes.

### 1.1.3 Conceptual background

Conceptualizing tutors' instructional approaches involves defining the overarching theoretical frameworks, delivery strategies, and classroom dynamics that educators employ to guide learning. In teacher education, instructional approaches dictate not only how subject content is delivered, but also how prospective teachers internalize classroom practices. Three prominent educational scholars Bruce Joyce and Marsha Weil, Malcolm Knowles, provide seminal paradigms for categorizing and understanding these instructional strategies.

Joyce and Weil (2015) conceptualize instructional approaches through their influential "Models of Teaching" framework, which groups pedagogical strategies into four distinct families based on their underlying psychological theories and educational goals. The Information-Processing Family focuses on cognitive development, encouraging students to collect, organize, and analyze data through strategies like inductive thinking, concept attainment, and advance organizers. The Social Interaction Family emphasizes collaborative learning, social democracy, and group problem-solving through techniques such as group investigation and structured debate. The Personal Family centers on individual autonomy, personal growth, and emotional development, positioning the tutor as a non-directive facilitator who supports self-concept and self-directed inquiry. Finally, the

Behavioral Systems Family relies on behaviorist principles, utilizing direct instruction, explicit modeling, guided practice, and mastery learning to build observable skills. Together, Joyce and Weil demonstrate that effective tutors draw from across these four families depending on the specific cognitive or practical learning outcomes desired.

Recognizing that student teachers in training institutes are young adults, Knowles (1984) conceptualizes instructional approaches along a continuum between pedagogy (child-learning strategies) and andragogy (adult-learning strategies). In the traditional pedagogical approach, the tutor assumes a teacher-centered, authoritative role, controlling the content, sequence, and pacing of instruction while viewing learners as passive recipients of knowledge; this manifests in lecture-heavy delivery, dictation, and rote memorization. Conversely, the andragogical approach is inherently learner-centered, grounded in the premise that adult learners are self-directed, draw upon rich prior experiences, and learn best when content is problem-centered and immediately applicable. Under this framework, tutors shift their instructional approach toward facilitation, utilizing small-group discussions, problem-based learning (PBL), action research, and reflective micro-teaching to help adult students construct their own professional competence.

In this study tutors instructional approaches will be operationalized as, Instructional planning and content organization, Formative assessment and continuous feedback, integration of educational technology, constructive and active learning approaches, differentiated and inclusive instruction

Conceptualizing students' learning outcomes in teacher education involves defining the cognitive, practical, and professional capabilities that student teachers acquire through their instructional experiences in Teacher Training Institutes. Unlike general academic programs, teacher preparation demands a multidimensional definition of success that evaluates not only theoretical subject

mastery but also real-world classroom execution and professional dispositions. Three influential educational scholars Benjamin Bloom, Lee Shulman, and Donald Kirkpatrick provide seminal paradigms for categorizing and understanding these student learning outcomes.

Bloom (1956), alongside subsequent revisions by Anderson and Krathwohl (2001), conceptualizes learning outcomes across three interconnected domains of human capability: the cognitive, the psychomotor, and the affective. The Cognitive Domain focuses on intellectual growth, progressing from basic recall of educational theories and subject matter to higher-order analysis, evaluation, and synthesis. The Psychomotor Domain addresses hands-on, actionable skills, which, in teacher training, translate into technical instructional execution such as chalkboard organization, voice modulation, lesson plan execution, and the production of low-cost teaching-learning materials. The Affective Domain governs emotional growth, professional ethics, empathy, and values, evaluating a student teacher's commitment to inclusive education, professional adaptability, and dedication to the teaching profession. Together, Bloom's taxonomy establishes that holistic learning outcomes require balanced growth across intellectual, practical, and attitudinal dimensions.

Shulman (1986, 1987) conceptualizes student learning outcomes through a domain-specific framework tailored to teacher education, arguing that a teacher's professional competence lies at the intersection of subject content and pedagogical strategy. Shulman distinguishes between Content Knowledge (CK) the deep understanding of a specific subject discipline (e.g., Mathematics or Science) and Pedagogical Knowledge (PK) the general understanding of classroom management, learning theories, and educational psychology. The ultimate learning outcome under this paradigm is Pedagogical Content Knowledge (PCK), which represents a

student teacher's ability to transform technical subject knowledge into pedagogically powerful, accessible forms adapted to diverse learner abilities. Under Shulman's framework, high learning outcomes are achieved when student teachers move beyond simply knowing subject facts to mastering the explicit strategies required to make those facts understandable to primary and secondary learners

In this study Student's learning outcomes was defined as pedagogical content knowledge, professional ethics and reflexive practice, Assessments and feedback competences, practical instructional execution and inclusive and adaptive teaching skills.

### 1.1.4. Contextual background

The deficit in student learning outcomes across Teacher Training Institutes (TTIs) in Northern Uganda represents a critical, systemic challenge that directly impairs regional educational quality (Ministry of Education and Sports (MoES, 2019). While student teachers frequently pass theoretical, high-stakes written examinations administered by central oversight bodies like Kyambogo University, national research highlights a severe gap in practical execution (Luigi Giussani Foundation & MoES, 2020). A widespread national assessment found that over 71% of teacher professional development and training models remain theory-heavy and one-off, resulting in a low mean Instructional Effectiveness Index (IEI) of just 2.12 out of 5 (Human Capital Study, 2026). Furthermore, national teacher surveys reveal widespread gaps in pedagogical preparedness, where a significant portion of trainees and active teachers have never participated in structured competence-based workshops, forcing them to rely on traditional, passive "chalk-and-talk" dictation during classroom instruction (UNEB, 2023).

In Northern Uganda a sub-region served by approximately 16 Primary Teacher Colleges (PTCs) and 5 National Teachers Colleges (NTCs) the severity of these outcome deficits is heavily compounded by post-conflict infrastructural and resource bottlenecks (Ssenkusu, 2012). Student teachers undergo training in severely overcrowded facilities characterized by high teacher-to-pupil ratios and acute shortages of science equipment, library materials, and technology aids (Ssenkusu, 2012). Empirical studies involving student teachers deployed across secondary and primary schools in Northern Uganda reveal that the lack of hands-on tools prevents trainees from building essential competencies, such as producing local Teaching-Learning Materials (TLMs) or designing formative assessment tasks (Omara, 2026). Consequently, student teachers demonstrate low self-efficacy in executing active, learner-centered methodologies, continuously relying on summative, rote-recall testing rather than continuous, competence-based evaluations (Omara, 2026).

This gap in learning outcomes is exacerbated by weak institutional support and inadequate feedback mechanisms during practicum periods (Omara, 2026). Studies evaluating student teachers' School Practice experiences in Northern Uganda highlight that trainees face inconsistent mentorship from host-school staff, irregular supervision from college tutors, and a stark absence of model lessons to emulate (Omara, 2026). Without structured feedback loops during field practice, student teachers struggle to translate college theory into functional classroom management or adaptive lesson delivery (Luigi Giussani Foundation, 2020). The downstream consequence is a self-perpetuating cycle: underprepared graduates re-enter the regional school system as full-time educators, directly contributing to low primary and secondary learner proficiencies in foundational literacy, numeracy, and higher-order thinking competencies across Northern Uganda (MoES, 2019)

## 1.2. Statement of the problem

Ideally, students' outcome constitutes the desired learning objectives, knowledge, skills and abilities individual students should possess or standards that schools and teachers want students to achieve. It is the educational, societal and life effects that result from students being educated. However, due to different teacher practices not being innovative, there has been high rate of failure and disappropriate students' outcomes in different regions in the country, especially in Lango sub region. In a study conducted on Partnership for 21st Century Skills by American Association of College of Teacher Education (2010), that sought to investigate the role of exam and knowledge-based education on students' professional competence in tertiary institutions in Lango subregion, Northern Uganda reported that instructors taught only what was exam related, ignoring the core concepts of building on knowledge and life skills. Another study by Naamara et al., (2017) reported poor students' outcome in Northern Uganda that was attributed to educational inequalities that resulted from teacher practices. Efforts by government to equip schools with basic scholastic materials to improve students' outcomes have been futile. Hence the need to investigate the

relationship between Teachers' Instructional Approaches on Students' Learning Outcomes in Lango sub region.

## 1.3 Purpose of the Study

The purpose of this study was to investigate the effect of tutor's instructional approaches on students' Learning outcomes in Teacher Training Institutes in Northern Uganda

## 1.4 Objectives of the study

The study was guided by the following specific objective

1. To examine the status of tutors instructional approaches in teacher training institutes in Northern Uganda
2. To assess the level of students learning outcomes in teacher training institutes in Northern Uganda
3. To establish the relationship between Tutors instructional approaches and Students learning outcomes in teacher training institutes in Northern Uganda

## 1.5 Research questions

1. What is the status of tutor's instructional approaches in teacher training institutes in Northern Uganda?

2. What is the level of students learning outcomes in teacher training institutes in Northern Uganda?

3. What is the relationship between tutors instructional approaches and students learning outcomes in teacher training institutes in Northern Uganda?

## 1.6. Scope

The study was conducted on colleges in Northern Uganda. The study focused on only colleges in Northern Uganda; it will be conducted in Northern Uganda. These two districts harbor the current Government aided Primary Teacher Colleges in Northern Uganda (2.8780° N, 32.7181° E). Besides, Gulu and Oyam districts have Universities that focus on improvement of teacher practices so as to efficiently achieve quality students' outcome, with a large population of inhabitants.

### 1.6.1. Time scope

The study was between March 2023 to September 2023. The study participants will be Teachers and students who will voluntarily be enrolled for the study.

### 1.6.2. Content scope

The study aims at examining the impact of teachers' instructional approaches on students' learning outcomes within Teacher training institutions in Northern Uganda.

1.7. Conceptual framework

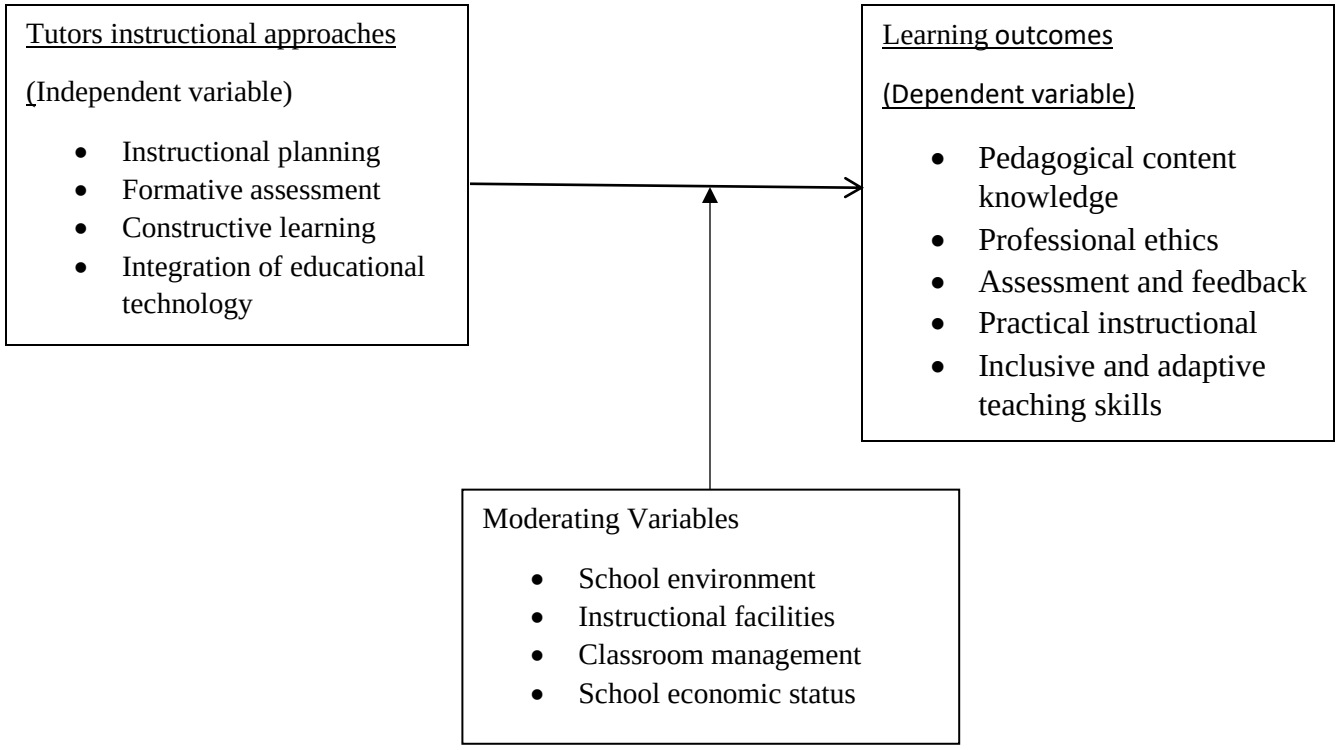



Fig 1: Conceptual framework for the effect of Teacher Practice on Students' Outcome, adapted from different sources by the principal investigator after reviewing different literatures (Creemers and Kyriakides., 2008; Sammons., 2009; Kyriakides., 2014 and Schere *et al.,* 2015).

1.8 Justification of the study

There's insufficient information on routine surveillance of teacher practices versus students' learning outcome in Uganda of which Lira and Gulu form a part. Yet cost-effective students' learning outcomes can only be possible when improvement efforts are directed towards factors that pose most threat to quality of students' learning outcome. This study documented information on the influence of tutors practice on students' outcomes in Primary teacher colleges in Oyam and Gulu, with the aim of providing information that will guide teachers, policy makers, agencies and

surrounding areas in establishing more effective control measures, in a bid to further boost students' learning outcome in the different learning institutions.

Besides, it will guide the government in its in-service program so that selected interventions can be appropriately distributed to different institutions in need.

# Chapter two

# Literature review

## 2.0 Introduction

This chapter presented review of related literature thematically according to the study specific objectives namely; to examine the status of tutor's instructional approaches in teachers training institutes in Northern Uganda, to assess the level of students learning outcomes in teacher training institutes in Northern Uganda and to establish the relationship between tutors instructional approaches and students learning outcomes in teacher training institutes in Northern Uganda

## 2.1 Theoretical review

The Framework for Teaching (FFT), originally developed by Charlotte Danielson in 1996 and systematically refined through subsequent iterations, is a research-backed, constructivist model designed to define, measure, and foster effective teaching practice (Danielson, 1996, 2007). Rather than viewing instruction as a set of mechanical techniques or checklists, the framework posits that teaching is a highly complex, cognitive endeavor requiring continuous, adaptive decision-making before, during, and after classroom interactions (Danielson, 2007). Grounded in foundational learning theories including Piaget (1952) and Bruner's (1960) cognitive constructivism, Vygotsky's (1978) social constructivism, Shulman's (1986, 1987) pedagogical content knowledge, and Schön's (1983) reflective practice the model asserts that learning occurs when students actively process information, collaborate, and construct meaning within supportive environments (Danielson, 2007). By structuring the multifaceted nature of teaching into a coherent professional architecture, the FFT provides educators and institutions with a shared vocabulary to evaluate instruction, guide continuous professional growth, and promote equitable student outcomes (Danielson, 1996).

The architecture of the framework organizes professional practice into four overarching domains that encompass twenty-two components and dozens of underlying elements of success (Danielson, 1996, 2007). The first domain, Planning and Preparation, addresses the off-stage cognitive work of designing instruction, evaluating how a teacher integrates subject-area expertise (Shulman, 1986) with an understanding of student identities, learning differences, and developmental needs to establish clear outcomes and aligned assessments (Danielson, 2007). The second domain, Learning Environments, focuses on the social, emotional, and physical conditions of the classroom, measuring how respect, a culture for learning, positive behavior, and inclusive spaces are cultivated in alignment with social constructivist principles (Vygotsky, 1978; Danielson, 2007). The third domain, Learning Experiences, serves as the on-stage core of interactive instruction, assessing how educators communicate purpose, facilitate critical thinking through questioning, engage students in active tasks, and utilize formative assessment to adapt delivery in real time (Danielson, 2007; Hattie, 2009). Finally, the fourth domain, Principled Teaching, captures off-stage professional responsibilities, evaluating an educator's capacity for reflective practice (Schön, 1983), accurate documentation, family engagement, collaborative professional learning, and ethical advocacy in service of students (Danielson, 2007).

A central theoretical premise of Danielson's model is that teaching expertise evolves along a developmental continuum rather than functioning as a static capability (Danielson, 2007). The framework evaluates teacher practice across four performance levels: Unsatisfactory, Basic, Proficient, and Distinguished (Danielson, 1996, 2007). Practice rated as Unsatisfactory reflects a lack of foundational knowledge, ineffective management, or practices that impede student learning (Danielson, 2007). A Basic rating characterizes novice or inconsistent practice, where an educator demonstrates foundational understanding but relies heavily on teacher-directed routines with

sporadic student engagement (Danielson, 2007). A Proficient rating represents solid, effective practice where structured, student-centered learning is consistently achieved through clear planning and active engagement (Danielson, 2007). At the Distinguished level, the locus of control shifts from teacher action to student agency; the classroom functions as a collaborative community where students take full ownership of their learning, lead discussions, self-assess, and support their peers' intellectual growth (Danielson, 2007; Vygotsky, 1978)

Secondly , Vygotsky's Social Constructivist Theory (Vygotsky, 1978) provides a direct theoretical foundation for explaining how college tutors' instructional approaches determine student teachers' learning outcomes. Rooted in psychological and educational literature, social constructivism asserts that learning is an inherently social, interactive, and culturally mediated process. Rather than viewing knowledge as a static package transmitted passively from instructor to student, the theory posits that learners actively construct meaning through dialogue, collaborative problem-solving, and guided practice within structured educational environments. In the context of Primary Teachers' Colleges (PTCs), this framework shifts the analytical focus away from isolated student studying, placing it directly on the dynamic instructional interactions that occur between tutors and prospective teachers.

A central construct of Social Constructivist Theory is the More Knowledgeable Other (MKO). The MKO refers to any individual who possesses a higher level of mastery, operational skill, or conceptual understanding regarding a specific learning task than the learner. In this study, the college tutor functions as the primary MKO. Tutors embody professional pedagogical standards, subject-matter expertise, and instructional experience. Social constructivism maintains that a trainee's cognitive development depends heavily on the quality of mediation provided by the

MKO. When tutors employ clear instructional planning, organize subject matter systematically, and model active learning strategies during daily college lectures, they fulfill their role as MKOs by exposing student teachers to expert professional reasoning and execution.

The cognitive space where this guided growth occurs is known as the Zone of Proximal Development (ZPD). Vygotsky defined the ZPD as the distance between a learner's actual developmental level demonstrated through independent problem-solving and their potential developmental level, as determined through problem-solving under adult guidance or in collaboration with more capable peers. Student teachers enter teacher training institutes with baseline content knowledge but limited practical expertise in classroom facilitation, assessment design, or inclusive instruction. Operating independently, trainees frequently default to simple, teacher-dominated lecturing. However, within their ZPD, prospective teachers can master complex competencies such as higher-order questioning, classroom management, and differentiated teaching when tutors systematically guide their practice.

To bridge the gap within the ZPD, the MKO must provide Scaffolding (Wood, Bruner, & Ross, 1976). Scaffolding represents the temporary support structures, instructional frameworks, and targeted assistance provided by tutors to help student teachers master tasks they could not execute unassisted. In relation to the study's independent variables:

- Instructional Planning and Organization: Tutors construct detailed course outlines, break down complex pedagogical theories into digestible steps, and align lectures with primary school curricula. This structural planning acts as cognitive scaffolding, reducing mental overload and allowing prospective teachers to internalize scheme-of-work and lesson-planning formats.

- Formative Assessment and Continuous Feedback: Timely, diagnostic feedback from tutors functions as a vital evaluative scaffold. When tutors evaluate micro-teaching sessions or draft lesson plans and provide specific qualitative commentary, they illuminate the precise gap between a trainee's current performance and the expected professional standard. This feedback enables student teachers to revise their approach before engaging in high-stakes school practice.
- Active and Inclusive Pedagogy: When tutors facilitate small-group discussions, problem-based learning, and peer micro-teaching, they scaffold the transition from theoretical understanding to practical execution. Prospective teachers actively co-construct pedagogical knowledge through social interaction with both their tutor and their peers.

As student teachers gain confidence, practical mastery, and pedagogical fluency, the tutor gradually withdraws these instructional supports a process known as fading. Through this progressive reduction of scaffolding, student teachers internalize the modeled pedagogical approaches and achieve full instructional autonomy. When deployed to primary schools for independent field practice, prospective teachers draw upon these internalized social interactions to independently manage classrooms, deliver interactive lessons, assess pupil learning, and support diverse learners.

Ultimately, Social Constructivist Theory demonstrates that student teachers' learning outcomes across cognitive, practical, assessment, inclusive, and affective domains are not formed in isolation. They are the direct product of the social mediation, ZPD expansion, and instructional scaffolding provided by college tutors through their daily teaching approaches

## 2.2 The status of Tutors instructional approaches in Teacher training institutes in Northern Uganda

The empirical literature surrounding teacher education and instructional practices in primary and secondary teacher training institutions highlights the pivotal role that tutors' pedagogical approaches play in shaping prospective teachers' learning outcomes (Akyeampong et al., 2023; Westbrook et al., 2022). Across Sub-Saharan Africa and developing educational contexts, the shift toward student-centered, reflective, and technology-integrated pedagogy has become a central theme in educational reform (Hardman et al., 2023; Schweisfurth, 2023). Research consistently demonstrates that when teacher educators actively model constructive, participatory learning methods, student teachers are far more likely to adopt those same active practices in their own future classrooms (Lunenberg et al., 2021; OECD, 2023). Conversely, reliance on traditional, teacher-dominated lecture formats reinforces passive learning behaviors, creating a continuous cycle of chalk-and-talk instruction across successive generations of educators (Altinyelken & Hoeksma, 2021; Vavrus & Bartlett, 2022).

A major focus of recent empirical studies centers on the operationalization of active and constructivist learning approaches within teacher training colleges (Kafyulilo et al., 2022; O'Sullivan & Thomas, 2023). Empirical investigations reveal a persistent disparity between teacher educators' theoretical endorsement of constructivist practices and their actual classroom implementation (Chizalu & Eilks, 2023; Mtika et al., 2022). While tutors frequently report strong support for cooperative learning, problem-based tasks, and micro-teaching demonstrations, real-world observations indicate that heavy syllabus coverage requirements, rigid examination structures, and large class sizes often force educators back into transmission-style lecturing (Nag

et al., 2022; Tabulawa & Kgosidialwa, 2023). Studies examining teacher training institutions in East Africa emphasize that active learning cannot be sustained solely through policy mandates; rather, it requires continuous professional development that equips tutors with concrete strategies for managing large, heterogeneous classes through peer learning and group problem-solving (Barza et al., 2023; Sifuna & Kaime, 2022).

Formative assessment and continuous feedback represent another critical dimension of effective tutor instruction examined in recent empirical research (Black & Wiliam, 2021; Hattie & Timperley, 2022). Studies evaluating assessment literacy among teacher educators demonstrate that regular, low-stakes formative assessments accompanied by detailed, timely feedback significantly enhance student teachers' metacognitive awareness and self-regulated learning (Heritage, 2021; Nicol, 2022). However, empirical findings across public teacher training colleges consistently document structural delays in feedback loops (Oduro et al., 2022; World Bank, 2023). High student-to-tutor ratios create substantial marking burdens, leading to situations where student teachers receive feedback on assignments weeks after completion (Asare & Nti, 2022; Ssentamu et al., 2023). Researchers emphasize that delayed feedback diminishes its formative value, preventing trainees from applying corrective insights to subsequent teaching practice and micro-teaching assessments (Carless & Winstone, 2023; Sadler, 2022).

The integration of educational technology and digital media within teacher education has received heightened empirical scrutiny in recent years (Celik, 2023; Tondeur et al., 2023). Literature exploring ICT adoption among teacher educators indicates that while tutors generally express positive attitudes toward digital tools, actual pedagogical integration remains moderate to low (Goktas et al., 2022; Hennessy et al., 2023). Empirical studies identify a combination of

institutional infrastructure deficits such as unreliable electricity, limited internet bandwidth, and scarce hardware and pedagogical capacity gaps as the primary barriers (Bingimlas, 2022; Kipsoi et al., 2023). Research shows that older or senior tutors often lack specialized training in digital pedagogy, relying instead on traditional printed materials (Ertmer & Ottenbreit-Leftwich, 2022; Tedla et al., 2023). Studies conclude that simply providing hardware is insufficient; effective technology integration requires structured professional development focused on technological pedagogical content knowledge (Mishra, 2023; UNESCO, 2024).

Differentiated and inclusive instruction represents one of the most frequently cited pedagogical gaps in teacher education literature (Florian, 2021; Forlin & Chambers, 2022). Empirical investigations into inclusive practices within training colleges reveal that while courses on special needs education are included in national curricula, tutors rarely model differentiated instruction in their daily teaching (Miles & Singal, 2022; UNESCO, 2023). Instead, instruction is typically delivered at a single, uniform pace, treating class cohorts as homogeneous groups (Croft & Ndlovu, 2022; Mwoma et al., 2023). Student teachers consequently graduate with theoretical knowledge of special educational needs but limited practical confidence in adapting lesson plans, instructional materials, or assessments for learners with diverse learning needs or disabilities (Sharma et al., 2022; Walton & Engelbrecht, 2023). Empirical studies stress the necessity of embedding Universal Design for Learning (UDL) principles across all college coursework rather than isolating inclusion into standalone theoretical units (CAST, 2022; Rose & Meyer, 2023).

Finally, empirical research strongly supports the systematic link between tutors' instructional approaches and student teachers' holistic learning outcomes (Darling-Hammond et al., 2022; Kunter et al., 2021). Regression and structural equation modeling studies across teacher education

contexts confirm that tutor instructional strategies account for a substantial proportion of variance in student teachers' pedagogical content knowledge, practical execution, and professional ethics (Baumert et al., 2021; Blömeke et al., 2022). When tutors systematically plan structured lessons, provide clear feedback, integrate interactive learning, and model inclusive strategies, student teachers demonstrate significantly higher levels of self-efficacy and classroom readiness during field practice (Shulman, 2021; Tschannen-Moran & Hoy, 2022). These empirical insights underscore the necessity of targeted institutional interventions, ongoing faculty development, and resource allocation to support teacher educators in delivering high-quality, modern instruction (Avalos, 2021; Darling-Hammond, 2023)

### 2.2.1. Instructional Planning & Content Organization

Instructional planning and content organization serve as the foundational blueprint for effective teacher preparation and curriculum implementation in teacher training colleges (Akyeampong et al., 2023; Westbrook et al., 2022). When tutors systematically design their lessons, align instructional goals with national curriculum frameworks, and organize subject matter logically, student teachers acquire strong pedagogical content knowledge (Baumert et al., 2021; Shulman, 2021). Structured planning by teacher educators directly models the essential administrative and pedagogical habits that prospective teachers must emulate when preparing schemes of work and daily lesson plans during school practice (Hardman et al., 2023; Sifuna & Kaime, 2022).

In addition to modeling organizational structure, thorough instructional planning ensures that complex theoretical concepts are broken down into manageable learning components (Darling-Hammond, 2023; Nag et al., 2022). Tutors who clearly articulate lesson objectives and learning outcomes at the beginning of lectures help trainees establish clear cognitive frameworks for

knowledge retention (Blömeke et al., 2022; Kunter et al., 2021). Research indicates that structured lesson delivery reduces cognitive load for student teachers, allowing them to focus on understanding pedagogical strategies rather than deciphering ambiguous content (Mtika et al., 2022; O'Sullivan & Thomas, 2023).

Logical content sequencing enables teacher educators to bridge foundational educational theories with practical classroom applications (Altinyelken & Hoeksma, 2021; Vavrus & Bartlett, 2022). By deliberately structuring coursework to progress from basic concepts to complex classroom scenarios, tutors foster higher-order analytical thinking in prospective teachers (Barza et al., 2023; Schweisfurth, 2023). Prospective teachers exposed to well-organized instructional sequences demonstrate greater competence in managing instructional time and structuring their own subject syllabi during field placements (Darling-Hammond et al., 2022; Tschannen-Moran & Hoy, 2022).

Conversely, poor instructional planning and disorganized content presentation severely undermine the learning outcomes of student teachers (Chizalu & Eilks, 2023; Tabulawa & Kgosidialwa, 2023). Unstructured lecture delivery creates ambiguity regarding key pedagogical concepts, leaving trainees poorly equipped to design valid learning tasks for primary or secondary pupils (Kafyulilo et al., 2022; OECD, 2023). Studies show that when tutors fail to model coherent lesson organization, prospective teachers tend to replicate these disorganized instructional habits in their own assigned classrooms (Lunenberg et al., 2021; World Bank, 2023).

Ultimately, high-quality instructional planning by tutors establishes a standard of professional excellence that influences the broader institutional culture of teacher training institutes (Avalos, 2021; UNESCO, 2023). Systematic planning incorporates appropriate instructional resources, allocates time for student inquiry, and aligns continuous assessment tasks directly with learning

objectives (Black & Wiliam, 2021; Heritage, 2021). Institutional commitment to rigorous instructional planning remains a vital driver of student teacher self-efficacy, academic achievement, and long-term professional competence (Hattie & Timperley, 2022; Nicol, 2022).

### 2.2.2. Formative Assessment & Continuous Feedback

Formative assessment and continuous feedback constitute vital instructional practices that drive reflective practice and skill development in initial teacher education (Black & Wiliam, 2021; Hattie & Timperley, 2022). Regular, low-stakes continuous assessment allows teacher educators to monitor trainees' cognitive progress and identify conceptual misunderstandings in real time (Heritage, 2021; Nicol, 2022). By incorporating continuous quizzes, peer micro-teaching evaluations, and reflective writing assignments, tutors create continuous diagnostic touchpoints that support deep learning (Asare & Nti, 2022; Carless & Winstone, 2023).

The delivery of timely, constructive feedback is the single most critical element connecting formative assessment to improved student teacher performance (Nicol & Macfarlane-Dick, 2006; Sadler, 2022). Specific feedback provides prospective teachers with actionable insights into their lesson planning, questioning techniques, and board work, guiding their professional development (Oduro et al., 2022; Ssentamu et al., 2023). When feedback is provided promptly following micro-teaching or coursework assignments, trainees can immediately integrate corrective suggestions into subsequent teaching demonstrations (Kafyulilo et al., 2022; World Bank, 2023).

Furthermore, tutor-led formative assessment practices serve as an authentic training model for prospective educators (Lunenberg et al., 2021; OECD, 2023). As student teachers experience varied assessment methods and detailed qualitative feedback firsthand, they internalize the

principles of assessment *for* learning (Black & Wiliam, 2021; Heritage, 2021). This experiential learning equips prospective teachers with the skills required to design diagnostic assessment tools and provide meaningful feedback to pupils in primary and secondary schools (Darling-Hammond, 2023; Shulman, 2021).

Despite its established benefits, structural challenges frequently impede the effective implementation of formative assessment in teacher training institutions (Asare & Nti, 2022; Oduro et al., 2022). High student-to-tutor ratios and excessive marking workloads often lead to severe delays in returning graded assignments and feedback notes (Ssentamu et al., 2023; World Bank, 2023). Empirical literature emphasizes that delayed feedback significantly diminishes in formative value, leaving prospective teachers unable to correct pedagogical errors prior to high-stakes school practice evaluations (Carless & Winstone, 2023; Sadler, 2022).

To maximize learning outcomes, teacher training institutions must prioritize institutional structures that facilitate ongoing, formative feedback loops (Avalos, 2021; Darling-Hammond et al., 2022). Utilizing standardized rubric criteria, peer-assessment frameworks, and digital assessment platforms can assist tutors in streamlining feedback processes (Celik, 2023; Tondeur et al., 2023). Enhancing tutors' assessment literacy ensures that continuous evaluation shifts from a purely administrative requirement to a dynamic tool for professional growth (Blömeke et al., 2022; Kunter et al., 2021).

### 2.2.3 Constructive and Active Learning Approaches

Constructive and active learning approaches rooted in constructivist learning theories represent a vital dimension of modern teacher education (Altinyelken & Hoeksma, 2021; Schweisfurth, 2023). Rather than treating prospective teachers as passive recipients of theoretical knowledge, active learning engages trainees in collaborative problem-solving, micro-teaching simulations, and peer-led discussions (Barza et al., 2023; Mtika et al., 2022). By facilitating inquiry-based tasks, tutors encourage student teachers to construct personal pedagogical understanding through experience and critical reflection (Chizalu & Eilks, 2023; O'Sullivan & Thomas, 2023).

Empirical research consistently demonstrates that active learning strategies implemented by tutors directly enhance student teachers' practical instructional competencies (Kafyulilo et al., 2022; Westbrook et al., 2022). Participatory learning environments foster higher-order critical thinking, adaptability, and collaborative skills necessary for modern classroom management (Hardman et al., 2023; Sifuna & Kaime, 2022). Prospective teachers who actively engage in micro-teaching and cooperative group work display higher instructional confidence and superior lesson execution during internship placements (Darling-Hammond et al., 2022; Tschannen-Moran & Hoy, 2022).

A key mechanism underlying active pedagogy in teacher education is explicit tutor modeling (Lunenberg et al., 2021; OECD, 2023). When teacher educators actively demonstrate student-centered strategies—such as jigsaw cooperative learning, think-pair-share, and Socratic questioning—trainees observe the practical execution of these methods in real time (Akyeampong et al., 2023; Nag et al., 2022). This experiential modeling bridges the gap between educational theory and real-world teaching, increasing the likelihood that graduates will deploy learner-centered methods in their future classrooms (Baumert et al., 2021; Shulman, 2021).

However, a persistent "implementation gap" exists between tutors' theoretical endorsement of constructivism and their daily classroom instruction (Chizalu & Eilks, 2023; Tabulawa & Kgosidialwa, 2023). In many resource-constrained teacher training institutes, tutors frequently revert to traditional, teacher-dominated lecture formats due to large class sizes, rigid exam-driven curricula, and inadequate physical infrastructure (O'Sullivan & Thomas, 2023; Vavrus & Bartlett, 2022). Over-reliance on passive lecturing reinforces a transmission model of education, perpetuating traditional "chalk-and-talk" teaching methods across generations (Altinyelken & Hoeksma, 2021; World Bank, 2023).

Sustaining constructive and active learning requires deliberate institutional investment and professional development for teacher educators (Avalos, 2021; Darling-Hammond, 2023). Colleges must equip tutors with advanced facilitation skills and techniques for managing large, interactive cohorts through small-group active learning structures (Barza et al., 2023; Sifuna & Kaime, 2022). Embedding constructivist principles across all teacher training modules ensures that prospective educators graduate as creative, reflective, and learner-centered professionals (Blömeke et al., 2022; Kunter et al., 2021).

### 2.2.4 Integration of Educational Technology & Media

The integration of educational technology and digital media within teacher training has become an essential determinant of student teachers' readiness for 21st-century classrooms (Celik, 2023; Tondeur et al., 2023). Guided by the Technological Pedagogical Content Knowledge (TPACK) framework, effective technology integration requires tutors to demonstrate how digital tools intersect with subject matter and pedagogical methods (Mishra, 2023; UNESCO, 2024). When tutors incorporate multimedia presentations, educational software, and interactive digital platforms

into lectures, trainees develop the capacity to design technology-enhanced learning experiences (Goktas et al., 2022; Hennessy et al., 2023).

Tutor modeling of educational media directly influences student teachers' technological self-efficacy and attitudes toward digital integration (Bingimlas, 2022; Ertmer & Ottenbreit-Leftwich, 2022). Prospective teachers who observe their educators utilizing instructional media ranging from low-cost, locally improvised learning aids to advanced digital applications are far more likely to develop creative learning materials for their own pupils (Kipsoi et al., 2023; Tedla et al., 2023). This practical exposure demystifies technology integration, transforming digital media from an abstract concept into an accessible instructional resource (Celik, 2023; UNESCO, 2023).

Furthermore, integrating educational technology expands prospective teachers' access to diverse learning resources and flexible instructional delivery (Hennessy et al., 2023; Tondeur et al., 2023). Utilizing digital learning management systems, online resource repositories, and virtual micro-teaching recordings enables continuous self-directed learning and peer collaboration among student teachers (Mishra, 2023; UNESCO, 2024). Tutors who leverage digital tools foster interactive learning environments that cater to diverse learning preferences and promote self-regulated study habits (Ertmer & Ottenbreit-Leftwich, 2022; Goktas et al., 2022).

Despite growing emphasis on digital transformation, empirical literature highlights significant systemic barriers to technology integration across teacher training institutions (Bingimlas, 2022; Kipsoi et al., 2023). Deficits in basic infrastructure such as unstable electrical grids, inadequate computer laboratories, poor internet connectivity, and scarce hardware frequently hinder consistent technology deployment (Tedla et al., 2023; UNESCO, 2023). Additionally, senior teacher educators often lack formal training in digital pedagogy, relying predominantly on

traditional printed materials and lecture notes (Ertmer & Ottenbreit-Leftwich, 2022; World Bank, 2023).

To address these implementation gaps, teacher training colleges must move beyond basic hardware provision and focus on comprehensive pedagogical support (Avalos, 2021; Darling-Hammond et al., 2022). Ongoing professional development programs should prioritize building tutors' TPACK competencies, enabling them to select, adapt, and integrate technology that directly aligns with specific learning outcomes (Celik, 2023; Mishra, 2023). Strategic investment in technology infrastructure and faculty development is vital for preparing prospective teachers to navigate technology-rich educational environments (Hennessy et al., 2023; UNESCO, 2024).

### 2.2.5 Differentiated and Inclusive Instruction

Differentiated and inclusive instruction represents a critical construct of teacher preparation focused on meeting the diverse learning needs of all pupils (Florian, 2021; Forlin & Chambers, 2022). Rooted in the principles of Universal Design for Learning (UDL), differentiated instruction requires teacher educators to model varied teaching paces, flexible learning tasks, and adaptable assessment methods (CAST, 2022; Rose & Meyer, 2023). When tutors model inclusive strategies, student teachers learn how to adapt core curricula for slow-paced learners, gifted students, and children with special educational needs (Croft & Ndlovu, 2022; Mwoma et al., 2023).

Empirical studies indicate that prospective teachers who observe and experience differentiated instruction during training demonstrate significantly higher confidence in managing heterogeneous classrooms (Miles & Singal, 2022; Sharma et al., 2022). Tutors who incorporate varied instructional modalities such as visual aids, kinesthetic learning tasks, and tiered

assignments demonstrate practical methods for making classroom content accessible (UNESCO, 2020; Walton & Engelbrecht, 2023). This firsthand experience reduces anxiety among prospective teachers regarding inclusive education and equips them with concrete strategies for classroom differentiation (Florian, 2021; Forlin & Chambers, 2022).

Additionally, modeling inclusive practices fosters positive professional attitudes, empathy, and social responsibility among student teachers (Croft & Ndlovu, 2022; Mwoma et al., 2023). When teacher educators create supportive learning environments that accommodate varied trainee learning paces and background experiences, they establish a professional standard of educational equity (Miles & Singal, 2022; UNESCO, 2023). Trainees internalize these inclusive values, developing a commitment to ensuring that no pupil is marginalized in their future primary or secondary classrooms (Sharma et al., 2022; Walton & Engelbrecht, 2023).

However, empirical literature consistently identifies differentiated and inclusive instruction as one of the least executed pedagogical constructs in teacher education institutes (Florian, 2021; Mwoma et al., 2023). While inclusive education modules are widely taught as theoretical coursework, tutors rarely model differentiated instruction in their daily lectures, defaulting instead to a uniform pace aimed at the "average" student teacher (Croft & Ndlovu, 2022; UNESCO, 2020). Consequently, trainees graduate with theoretical awareness of special needs education but lack practical, hands-on skills to adapt instruction in real-world classrooms (Miles & Singal, 2022; Walton & Engelbrecht, 2023).

Addressing this gap requires teacher training institutions to embed inclusive pedagogical principles across all academic disciplines rather than isolating them in standalone theoretical courses (CAST, 2022; Rose & Meyer, 2023). Tutors require targeted professional training to build capacity in

adaptive learning strategies, flexible assessment design, and inclusive classroom management (Forlin & Chambers, 2022; Sharma et al., 2022). Systematically embedding differentiated instruction within initial teacher training is essential for fostering equitable, accessible, and high-quality education across all school levels (Darling-Hammond, 2023; UNESCO, 2023)

## 2.3 The level student's teachers learning Outcomes in Teachers Training Institutes

Empirical literature investigating the level of student teachers' learning outcomes in teacher training institutes reveals a multifaceted profile of professional preparation (Akyeampong et al., 2023; Westbrook et al., 2022). Scholars consistently categorize prospective teachers' acquired outcomes into three primary domains: cognitive subject-matter knowledge, practical pedagogical skills, and professional attitudes and dispositions (Baumert et al., 2021; Kunter et al., 2021). Across Sub-Saharan Africa and developing educational contexts, studies indicate that student teachers generally achieve high levels of theoretical knowledge and basic administrative mastery, but exhibit moderate to low competencies in adaptive, student-centered instructional execution (Hardman et al., 2023; Schweisfurth, 2023).

In the domain of cognitive outcomes and subject matter mastery, empirical studies show that student teachers demonstrate solid baseline performance in academic content knowledge and pedagogical theory (Blömeke et al., 2022; Shulman, 2021). Trainees consistently score favorably in national examinations, course assessments, and foundational educational disciplines such as educational psychology and curriculum studies (Mtika et al., 2022; Ssentamu et al., 2023). Researchers attribute this strong performance to traditional college curricula that emphasize memorization and syllabus coverage (Altinyelken & Hoeksma, 2021; Tabulawa & Kgosidialwa, 2023). However, literature notes that while prospective teachers possess theoretical subject

knowledge, their ability to transform this content into accessible, age-appropriate learning tasks for young learners remains uneven (Chizalu & Eilks, 2023; Nag et al., 2022).

Regarding practical instructional skills and classroom execution, literature characterizes student teachers' learning outcomes as moderate (Darling-Hammond, 2023; OECD, 2023). Studies evaluating trainees during school practice find that student teachers excel in formal administrative duties, including constructing schemes of work, writing lesson plans, and maintaining professional board work (Asare & Nti, 2022; Sifuna & Kaime, 2022). Conversely, when evaluated on live classroom delivery, trainees frequently struggle with active learning facilitation, time management, and higher-order questioning techniques (Barza et al., 2023; O'Sullivan & Thomas, 2023). Empirical evidence indicates that when faced with large, crowded classrooms, student teachers default to teacher-dominated lecturing, indicating a gap between theoretical training and practical classroom execution (Kafyulilo et al., 2022; Vavrus & Bartlett, 2022).

A critical area of concern highlighted in recent empirical literature is the low level of learning outcomes achieved in inclusive and adaptive teaching skills (Florian, 2021; Forlin & Chambers, 2022). Research demonstrates that while prospective teachers complete theoretical modules on special educational needs, they struggle to differentiate instruction for slow learners, gifted pupils, or children with disabilities (Miles & Singal, 2022; Mwoma et al., 2023). Empirical findings reveal that student teachers typically pitch lessons at a single, uniform pace aimed at the average pupil, leaving diverse learning needs unmet (Croft & Ndlovu, 2022; Sharma et al., 2022). Scholars attribute this limitation to a lack of practical modeling by college tutors and inadequate exposure to differentiated pedagogical strategies during initial teacher training (CAST, 2022; Walton & Engelbrecht, 2023).

On the other hand, empirical literature reports high achievement in the affective domain, specifically regarding professional ethics, discipline, and reflective practice (Lunenberg et al., 2021; Tschannen-Moran & Hoy, 2022). Studies evaluating mentor ratings and self-assessments indicate that student teachers demonstrate high adherence to professional codes of conduct, punctuality, appropriate dress, and respect for school leadership (Avalos, 2021; World Bank, 2023). Furthermore, trainees exhibit a strong receptivity to constructive criticism during school practice supervision, using mentor feedback to refine subsequent lesson plans (Carless & Winstone, 2023; Sadler, 2022). Scholars conclude that while teacher training institutes successfully instill professional discipline and basic administrative routines, comprehensive curriculum reforms are required to elevate practical, inclusive, and technology-driven teaching competencies to high levels (Darling-Hammond et al., 2022; UNESCO, 2023)

### 2.3.1. Pedagogical Content Knowledge and Subject Mastery

Pedagogical Content Knowledge (PCK) and subject matter mastery represent the foundational cognitive construct of student teachers' learning outcomes (Baumert et al., 2021; Shulman, 2021). This construct encompasses a prospective teacher's dual capacity to understand core academic subjects (such as mathematics, literacy, and science) and translate that knowledge into age-appropriate, digestible learning tasks for primary learners (Akyeampong et al., 2023; Shulman, 1987).

Empirical studies consistently demonstrate that student teachers achieve high performance levels in general subject matter mastery and theoretical pedagogy (Blömeke et al., 2022; Kunter et al., 2021). Trainees perform strongly on standardized college examinations and display clear theoretical understanding of curriculum objectives (Mtika et al., 2022; Ssentamu et al., 2023).

Scholars attribute these solid cognitive outcomes to traditional teacher training curricula that prioritize rigorous syllabus coverage and academic content testing (Altinyelken & Hoeksma, 2021; Tabulawa & Kgosidialwa, 2023).

However, literature notes a persistent qualitative gap between raw subject knowledge and true pedagogical transformation (Chizalu & Eilks, 2023; Nag et al., 2022). While student teachers memorize subject definitions and pedagogical theories, they frequently struggle during live teaching practice to simplify complex concepts for young or struggling learners (Darling-Hammond, 2023; O'Sullivan & Thomas, 2023). This gap highlights that high cognitive scores on college exams do not automatically translate into effective subject delivery in real-world classrooms (Hardman et al., 2023; World Bank, 2023).

2.3.2. Classroom Instruction & Active Facilitation Skills

Classroom instruction and active facilitation skills constitute the practical execution construct of student teacher competence (Kafyulilo et al., 2022; Westbrook et al., 2022). This dimension evaluates a trainee’s operational ability to manage instructional time, facilitate interactive learning activities, employ effective questioning techniques, and use teaching-learning aids during classroom delivery (Barza et al., 2023; Sifuna & Kaime, 2022).

Literature characterizes student teachers' outcomes in this practical domain as moderate (OECD, 2023; Schweisfurth, 2023). During field practice assessments, student teachers demonstrate competence in administrative routines—such as constructing detailed schemes of work, drafting lesson plans, and maintaining clear chalkboard organization (Asare & Nti, 2022; Ssentamu et al.,

2023). They understand the mechanical structure of a lesson and follow prescribed curriculum steps accurately (Hardman et al., 2023; Nag et al., 2022).

Despite administrative proficiency, live classroom facilitation remains a major challenge when trainees encounter real-world primary school conditions (Altinyelken & Hoeksma, 2021; Vavrus & Bartlett, 2022). When faced with large class sizes (often exceeding 60 pupils), prospective teachers frequently abandon interactive strategies and default to direct transmission lecturing (Barza et al., 2023; O'Sullivan & Thomas, 2023). Research indicates that trainees struggle to manage time effectively, rarely facilitate small-group problem solving, and rely heavily on chorus answers rather than higher-order individual questioning (Chizalu & Eilks, 2023; World Bank, 2023).

### 2.3.3. Formative Assessment Literacy & Feedback Execution

Assessment literacy and feedback execution represent the evaluative construct of prospective teacher outcomes (Black & Wiliam, 2021; Heritage, 2021). This construct measures a student teacher's ability to construct valid test items, design continuous assessment tasks, evaluate pupil exercise books, and provide diagnostic, corrective feedback to guide learner progress (Hattie & Timperley, 2022; Nicol, 2022).

Empirical evaluations show mixed learning outcomes in this domain (Carless & Winstone, 2023; Sadler, 2022). On one hand, student teachers display strong summative assessment literacy; they demonstrate competence in marking terminal tests, recording numerical scores, and constructing basic multiple-choice or short-answer questions (Asare & Nti, 2022; Oduro et al., 2022). They

understand the administrative necessity of continuous assessment as mandated by national curriculum bodies (Heritage, 2021; Ssentamu et al., 2023).

On the other hand, student teachers exhibit low to moderate mastery in delivering formative, qualitative feedback (Carless & Winstone, 2023; Nicol & Macfarlane-Dick, 2006). Due to large pupil numbers during internship placements, trainees frequently mark exercise books with simple checkmarks without providing explanatory comments (Asare & Nti, 2022; World Bank, 2023). Literature confirms that student teachers rarely use assessment results dynamically to adjust their subsequent lesson plans, indicating that their assessment skills remain predominantly administrative rather than diagnostic (Black & Wiliam, 2021; Sadler, 2022).

### 2.3.4. Differentiated and Inclusive Teaching Skills

Differentiated and inclusive teaching competence represents the adaptive construct of student teacher learning outcomes (Florian, 2021; Forlin & Chambers, 2022). Rooted in Universal Design for Learning (UDL), this construct measures a trainee's ability to modify teaching methods, adjust learning pace, and adapt instructional materials to accommodate learners with special educational needs, slow learning rates, or physical disabilities (CAST, 2022; Rose & Meyer, 2023).

Across teacher training literature in developing contexts, differentiated teaching consistently emerges as the lowest-performing learning outcome construct among student teachers (Croft & Ndlovu, 2022; Mwoma et al., 2023). Although prospective teachers complete theoretical modules on special needs education, their practical execution in heterogeneous classrooms is severely limited (Miles & Singal, 2022; Sharma et al., 2022). Trainees demonstrate significant difficulty in

identifying slow learners early and adapting lesson tasks to support them (Florian, 2021; Walton & Engelbrecht, 2023).

Empirical findings reveal that during school practice, student teachers predominantly "teach to the middle" or top of the class, delivering a single uniform lesson pace that leaves both slow learners and advanced pupils unengaged (Croft & Ndlovu, 2022; UNESCO, 2020). Scholars attribute this low outcome level to the fact that college tutors rarely model differentiated strategies during daily college lectures, leaving prospective teachers without practical, observed examples of inclusive classroom management (Lunenberg et al., 2021; Mwoma et al., 2023).

### 2.3.5. Professional Ethics, Conduct & Reflective Disposition

Professional ethics, conduct, and reflective disposition constitute the affective construct of student teachers' learning outcomes (Avalos, 2021; Tschannen-Moran & Hoy, 2022). This dimension evaluates non-cognitive professional competencies, including adherence to teacher codes of conduct, professional dress, punctuality, ethical integrity, and responsiveness to supervisory feedback (Darling-Hammond et al., 2022; World Bank, 2023).

Empirical research across teacher training institutes consistently rates student teachers exceptionally high in this affective domain (Lunenberg et al., 2021; OECD, 2023). School supervisors and headteachers frequently commend trainees for maintaining high standards of personal discipline, dressing appropriately, demonstrating respect for institutional authority, and arriving punctually for lessons (Avalos, 2021; Ssentamu et al., 2023).

Furthermore, student teachers demonstrate a strong reflective growth mindset during school practice evaluations (Carless & Winstone, 2023; Tschannen-Moran & Hoy, 2022). When college

tutors or mentor teachers point out instructional weaknesses during post-observation debriefs, trainees show a high willingness to accept constructive criticism and implement recommended adjustments in subsequent lessons (Darling-Hammond, 2023; Sadler, 2022). Literature confirms that initial teacher training institutions succeed most significantly in instilling professional discipline, ethical commitment, and reflective openness among prospective educators (Avalos, 2021; World Bank, 2023

## 2.4: The relationship between Tutors instructional approaches and Student teachers learning outcomes

The link between teacher educators' instructional approaches and the resulting learning outcomes of student teacher trainees is a central focus of empirical research in initial teacher education (Akyeampong et al., 2023; Westbrook et al., 2022). Modern educational theories, particularly Vygotsky's Social Constructivism and Bandura's Social Learning Theory, suggest that teacher educators serve a dual role: they deliver academic content while explicitly modeling pedagogical behaviors for trainees to emulate (Lunenberg et al., 2021; UNESCO, 2023). Empirical studies across Sub-Saharan Africa and developing contexts confirm that tutors' instructional strategies directly influence student teachers' pedagogical content knowledge, practical facilitation, assessment literacy, inclusive capabilities, and professional dispositions (Baumert et al., 2021; Kunter et al., 2021).

Empirical research shows a significant positive relationship between tutors' systematic instructional planning and student teachers' cognitive learning outcomes (Blömeke et al., 2022; Shulman, 2021). When teacher educators prepare structured lesson plans, present clear behavioral objectives, and align college lectures with national primary/secondary curricula, trainees acquire

higher levels of subject matter knowledge and pedagogical content mastery (Darling-Hammond, 2023; Hardman et al., 2023). Systematic content organization provides an explicit framework that helps prospective teachers structure schemes of work and daily lesson plans during field practice (Sifuna & Kaime, 2022).

Conversely, studies indicate that unstructured lecture delivery and weak alignment between college coursework and real-world school syllabi hinder trainee performance (Chizalu & Eilks, 2023; Mtika et al., 2022). When tutors deliver disorganized lectures without clear learning goals, student teachers struggle to break down complex concepts for young learners during teaching practice (Nag et al., 2022; O'Sullivan & Thomas, 2023). Empirical findings across East African Primary Teachers' Colleges (PTCs) confirm that structured tutor planning directly improves student teachers' lesson preparation and subject execution (Ssentamu et al., 2023; World Bank, 2023).

Formative assessment and continuous feedback represent a crucial instructional link to prospective teachers' assessment literacy (Black & Wiliam, 2021; Heritage, 2021). Empirical literature demonstrates that when tutors use low-stakes diagnostic tools—such as quizzes, micro-teaching peer evaluations, and reflective journals—student teachers develop greater metacognitive awareness and stronger self-regulated learning skills (Hattie & Timperley, 2022; Nicol, 2022). By experiencing diverse assessment methods firsthand, trainees internalize principles of assessment for learning, improving their ability to design test items and mark exercise books during internship placements (Asare & Nti, 2022; Carless & Winstone, 2023).

However, empirical investigations document a persistent "feedback bottleneck" across public teacher training institutions (Oduro et al., 2022; Sadler, 2022). High student-to-tutor ratios and

large class sizes create substantial marking burdens, causing tutors to return feedback weeks after assignment completion or post-practicum supervision (Asare & Nti, 2022; World Bank, 2023). Researchers note that delayed feedback severely undermines trainee growth, preventing prospective teachers from correcting instructional errors before high-stakes evaluations (Carless & Winstone, 2023; Ssentamu et al., 2023). Studies conclude that timely, qualitative tutor feedback is essential for developing reflective, assessment-literate teachers (Black & Wiliam, 2021; Nicol & Macfarlane-Dick, 2006).

Active, constructivist learning strategies such as cooperative group work, problem-based tasks, inquiry-based projects, and micro-teaching consistently emerge as the strongest predictor of student teachers' practical instruction skills (Barza et al., 2023; Kafyulilo et al., 2022). Regression modeling studies reveal that interactive tutor practices account for significant unique variance in trainees' classroom facilitation and questioning techniques (Baumert et al., 2021; Kunter et al., 2021). When tutors model student-centered methods, trainees observe real-time execution and are far more likely to deploy interactive, learner-centered pedagogy in their own primary classrooms (Altinyelken & Hoeksma, 2021; Lunenberg et al., 2021).

Despite these benefits, empirical literature identifies a widespread implementation gap across training colleges (Chizalu & Eilks, 2023; Tabulawa & Kgosidialwa, 2023). Heavy syllabus requirements, rigid exam structures, and overcrowded lecture halls often compel tutors to fall back on direct transmission lecturing (O'Sullivan & Thomas, 2023; Vavrus & Bartlett, 2022). This over-reliance on passive lectures reinforces a transmission model of education, causing trainees to default to traditional "chalk-and-talk" delivery when managing large primary classes (Barza et al., 2023; Sifuna & Kaime, 2022).

Guided by the Technological Pedagogical Content Knowledge (TPACK) framework, recent literature highlights the role of tutor technology modeling in building prospective teachers' digital capabilities (Celik, 2023; Mishra, 2023). Empirical research shows that when tutors incorporate multimedia presentations, educational software, and local instructional media into college lectures, prospective teachers show higher self-efficacy in designing visual and digital aids for their pupils (Bingimlas, 2022; Tondeur et al., 2023). Practical exposure to digital resources demystifies media integration, turning educational technology into an accessible instructional tool (Ertmer & Ottenbreit-Leftwich, 2022; UNESCO, 2024).

However, empirical studies across low-resource teacher colleges identify major structural barriers to effective ICT integration (Goktas et al., 2022; Hennessy et al., 2023). Infrastructure deficits such as unreliable power, limited computer labs, poor internet bandwidth, and scarce hardware frequently impede regular technology use (Kipsoi et al., 2023; Tedla et al., 2023). Furthermore, many senior tutors lack formal training in digital pedagogy, relying primarily on static print materials (Ertmer & Ottenbreit-Leftwich, 2022; World Bank, 2023). Scholars emphasize that providing hardware alone is insufficient; long-term gains require continuous professional development focused on pedagogical technology integration (Celik, 2023; UNESCO, 2024).

Differentiated and inclusive instruction represents a critical yet consistently low-performing domain in initial teacher training (Florian, 2021; Forlin & Chambers, 2022). Rooted in Universal Design for Learning (UDL), this approach requires tutors to model varied teaching paces, flexible assignments, and adapted learning materials for diverse trainees (CAST, 2022; Rose & Meyer, 2023). Empirical studies show that prospective teachers who experience differentiated strategies

during training display higher confidence in supporting slow learners and children with special educational needs (Miles & Singal, 2022; Sharma et al., 2022).

Nevertheless, empirical evidence confirms that differentiated instruction remains poorly modeled in daily college lectures (Croft & Ndlovu, 2022; Mwoma et al., 2023). While inclusive education is taught as a theoretical subject, tutors predominantly deliver lectures at a single uniform pace aimed at the average student teacher (Miles & Singal, 2022; UNESCO, 2020). Consequently, prospective teachers graduate with theoretical awareness of special needs but lack practical skills to adapt instruction in real, heterogeneous primary classrooms (Florian, 2021; Walton & Engelbrecht, 2023

# Chapter three

# Methodology

## 3.0 Introduction

This chapter covers the methods that was used in the study. They will include the research design, the study population, target population, sampling size, sampling techniques, data collection techniques, questionnaire survey, quality control, administration procedure, ethical consideration, data analysis and limitations of the study.

## 3.1 Research approach

This study adopts a mixed-methods research approach to investigate the influence of tutors' instructional approaches on student teachers' learning outcomes in Teacher Training Institutes in Northern Uganda. A mixed-methods approach involves the intentional collection, analysis, and integration of both quantitative and qualitative data within a single inquiry (Creswell & Creswell, 2018). Pragmatism serves as the philosophical foundation for this approach, prioritizing research questions over dogmatic philosophical debates between positivism and constructivism (Tashakkori et al., 2021).

The mixed-methods approach was selected because relying solely on quantitative or qualitative data would be insufficient to capture the complexity of instructional dynamics in teacher preparation (Johnson & Onwuegbuzie, 2004). Quantitative methods provide broad, generalizable statistical trends regarding tutors' instructional strategies and student teachers' performance metrics across multiple colleges (Creswell & Creswell, 2018). Concurrently, qualitative methods offer contextualized, in-depth insights into the lived experiences, institutional constraints, and

classroom dynamics that explain *why* and *how* these instructional strategies yield specific learning outcomes (Teddie & Tashakkori, 2009). Integrating both paradigms allows for data triangulation, neutralizing the inherent biases of single-method studies and enhancing the overall validity and trustworthiness of the findings (Greene et al., 1989)

## 3.3 Research design

Within the mixed-methods approach, this study employs a Convergent Parallel Mixed-Methods Design (Creswell & Plano Clark, 2018). In a convergent design, the researcher collects quantitative and qualitative data concurrently during the same phase of the study, analyzes both datasets independently using appropriate statistical and thematic techniques, and subsequently merges the two sets of results during the interpretation stage to assess convergence, divergence, or expansion (Creswell & Plano Clark, 2018)

## 3.4 Target Population

The study targeted principals, tutors and students in Teacher training institutions in Oyam district and Gulu city, that are located in Northern Uganda.

## 3.3 Sample size

The researcher used Krejceie and Morgan (1970) table of sample size determination to determine the sample size for quantitative data. 196 students and 28 tutors were sampled from Loro TTI ($Ns_1$=400 and $Nt_1$=33). Besides, 181 students and 24 tutors were also sampled from Gulu TTI ($Ns_2$=350 and $Nt_2$=28).

Therefore, $n_1$=196 +28

=224 participants from Loro TTI

$n_2$=181 +24

=205 participants from Gulu TTI

These give a total sample size of;

$n = n_1 + n_2$

n = 224 +205; n = 429 participants

3.4 Sampling technique

Participants (students) were selected through a systematic probability sampling procedure; where every student was subjected to the eligibility criteria and a sequential number given to each eligible study participant (student) according to the order the research team met them on compound during break times.

Table 3.1: Sampling frame

| Institution | Total Tutors (N) | Total Students (N) | Sampled Tutors (n) | Sampled Students (n) | Total Participants (n) |
|---|---|---|---|---|---|
| Loro TTI | 33 | 400 | 28 | 196 | 224 |
| Gulu TTI | 28 | 350 | 24 | 181 | 205 |
| Total | 61 | 750 | 52 | 377 | 429 |

Tutors were purposively sampled, by subjects they teach so that all disciplines are captured in this study

## 3.5 Data collection method

### 3.5.1 Questionnaire survey

A questionnaire survey is a systematic, quantitative data collection instrument comprising a standardized series of closed-ended questions and Likert-scale items administered to a target population or representative sample (Fowler, 2014). In this study, the survey measures student teachers' and tutors' perceptions of instructional approaches and student learning outcomes across cognitive, practical, and affective domains. Surveys are essential for gathering broad, generalizable data across spread-out educational institutions efficiently and cost-effectively (DeVellis & Thorpe, 2021). By using standardized Likert scales, the instrument allows the researcher to quantify abstract pedagogical behaviors, run descriptive and inferential statistical tests (such as regression and ANOVA), and compare findings across different Teacher Training Institutes in Northern Uganda (Field, 2018; Creswell & Creswell, 2018). The survey was designed using self-administered paper and digital formats based on operationalized dimensions of instructional approaches and learning outcomes. Closed-ended items used a 5-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. Prior to field deployment, the questionnaire underwent expert review for content validity and was pilot-tested with a small cohort of non-participating student teachers to establish internal consistency reliability using Cronbach's alpha (0.70) (DeVellis & Thorpe, 2021). Field assistants administered the instrument in group settings during college hours to maximize response rates (Fowler, 2014)

### 3.5.2 Interview

Semi-structured interviews are qualitative, direct conversational encounters where the researcher uses a flexible interview guide featuring open-ended questions to explore participants' perspectives, experiences, and underlying reasoning (Kvale & Brinkmann, 2009; Rubin & Rubin,

2012). Unlike structured surveys, semi-structured interviews allow the researcher to probe further based on the participant's initial responses. While surveys capture *what* instructional practices occur, interviews explain *why* tutors adopt specific approaches and *how* institutional constraints (such as overcrowded lecture halls, lack of teaching aids, and post-conflict infrastructural challenges) shape classroom dynamics (Miles et al., 2014). Key Informant Interviews (KIIs) with principals and department heads, along with Focus Group Discussions (FGDs) with student teachers, capture nuanced insights and institutional contexts that closed-ended survey items cannot uncover (Rubin & Rubin, 2012; Creswell & Plano Clark, 2018). Interview guides were drafted around core study themes: tutors' daily instructional choices, institutional resource availability, School Practice preparation, and observed competency gaps. Interviews were conducted face-to-face in quiet, private college spaces, lasting between 30 to 45 minutes. With participant consent, audio recordings were captured alongside written field notes (Kvale & Brinkmann, 2009). The recordings were transcribed verbatim, anonymized, and uploaded into NVivo software for thematic coding and qualitative analysis (Braun & Clarke, 2006)

### 3.6 Quality control

Data polishing was done by removing duplicated data, fixing structural errors like misspellings, identifying and dealing with missing data, filtering out data outliers and validation of data. These ensured data is regularly structured and sufficiently clean for analysis.

### 3.7 Validity of the Research Instrument

The researcher tested the validity of the instrument by formulating the questions in line with the topic to meet the objectives of the study. This was followed the following steps; first the researcher formulated research questions in line with the objectives of the research, second, the instrument was availed to the research supervisor for validation. Third, the researcher did corrections of the

instrument to ensure that it was correctly formulated and grammatically correct when the research supervisor suggested any corrections. Upon the approval of the questionnaire, the researcher calculated the Content of Validity Index (CVI) with the help of the supervisor as follows:

$$CVI = \frac{\text{Total number of relevant items in the questionnaire}}{\text{Total number of items in the questionnaire}}$$

The CVI calculated for this study was 0.85. Amin, (2005) recommends that a questionnaire is valid if the CVI is 0.7.

3.8 Reliability of the Research Instrument

Questionnaires were administered to the 16 respondents from Loro T.T.I on two different occasions (at interval of 12 days so as to minimize memory issues). Results from the questionnaire were then captured in SPSS Version 16 and test-retest index calculated. An index of more than 0.7 indicated the instrument is reliable. For this study, an index of 0.85 was obtained for this study.

For this study, the CVI was calculated as follows:

$$CVI = \frac{\text{Total number of relevant items in the questionnaire}}{\text{Total number of items in the questionnaire}}$$

- Total relevant items: 17
- Total items: 20

$$CVI = \frac{17}{20} = 0.85$$

## 3.9 Administration procedure

After successfully selecting the respondents randomly, the researcher endeavored to make all necessary introductions and explanations including; researcher's identity, purpose of the research, nature of respondents needed, the length of the data collection procedure, risks and befits involved in participating in the study. After this overview, the researcher issued a consent form to eligible respondents and proceeded with data collection.

While administering the data collection process, several challenges arose, which were addressed as follows:

Many respondents had tight schedules, making it difficult to secure their participation. To mitigate this, the researcher offered flexible timing for data collection sessions, allowing respondents to choose convenient times, especially break times.

Some participants initially struggled to understand specific questions on the questionnaire. To resolve this, the researcher remained present during the data collection to clarify any ambiguities and provide further explanations as needed.

Some respondents were hesitant to participate due to concerns about confidentiality and the use of their responses. To alleviate these concerns, the researcher reinforced the confidentiality measures in place and assured participants that their responses would only be used for research purposes.

During the administration of self-administered questionnaires, some technical difficulties arose with electronic devices. The researcher prepared by having backup paper questionnaires available, ensuring that data collection could continue without significant interruption.

There were instances of incomplete responses or inconsistent answers from participants. To counter this, the researcher emphasized the importance of providing thorough and thoughtful

responses during the introduction phase and ensured that respondents felt comfortable taking their time to complete the questionnaire.

### 3.10 Ethical considerations

Voluntary participation and informed consent were strictly enforced across both the quantitative and qualitative strands of the study (Fowler, 2014). Every participant including college principals, department heads, tutors, and student teachers was provided with an Informed Consent Form written in clear, non-technical language outlining the study's scope, the specific nature of their involvement, and their right to withdraw at any point without negative academic or administrative repercussions (Creswell & Creswell, 2018; Kvale & Brinkmann, 2009). For quantitative survey respondents, consent was documented via signed consent slips prior to questionnaire distribution, while written consent and explicit audio-recording permissions were obtained for qualitative interviews and focus groups (Fowler, 2014; Rubin & Rubin, 2012).

To protect participants' professional identity and personal standing within their institutions, strict protocols were implemented to maintain anonymity and data confidentiality (Creswell & Plano Clark, 2018). Questionnaire forms did not collect names, staff IDs, or student registration numbers, relying instead on unique numeric identification codes for statistical auditing (Fowler, 2014; Field, 2018). For qualitative data, all names of colleges, principals, tutors, and student teachers were replaced with alphanumeric pseudonyms during transcription and reporting (Miles et al., 2014). All electronic data files were encrypted and stored on a password-protected cloud drive accessible only to the principal researcher, while hard-copy questionnaires and interview notes were locked in a physical filing cabinet for a mandatory retention period before secure disposal (Creswell & Creswell, 2018; UNCST, 2025).

Finally, the study was designed to ensure non-maleficence by posing no physical, psychological, or financial risks to participants (APA, 2020). Classroom observations were conducted unobtrusively without interrupting scheduled lessons or evaluating tutors publicly in front of student teachers (Miles et al., 2014). Furthermore, survey and interview responses were treated with strict confidentiality to ensure that no participant's evaluation of college instruction could lead to institutional reprimand, professional vulnerability, or academic victimization (Kvale & Brinkmann, 2009)

### 3.11 Data analysis

Editing- this was done to ensure the accuracy of the data including consistency with other facts that were gathered to help in coding and tabulating. First field editing was done when in the field and later on central editing in preparation for data analysis.

Coding- this involved the process of assigning numerical and or other symbols to the responses. However, the structured questions were pre-coded by assigning numerical or alphabetical numbers before fieldwork is embarked on.

Data entry- this involved the entrance of data into the computer using Statistical Package for social scientists.

Tabulation- this involved summarizing raw data and displaying it in compact form in order to be able to interpret it and this are in form of tables for further analysis.

Data analysis- Data entry from questionnaires were done in Microsoft Excel version 2013 and exported to and analysed in STPSS version 15, at a confidence level of 95 %. A bivariate analysis (Chi-square test) was used to determine associations between Learning outcome and Teacher practices. Teacher practices that show significant association with bivariate analysis were further

be subjected to multivariate analysis (Logistic regression) to establish the magnitude of association.

### 3.12 Limitations and delimitations of the study

Dishonesty is answering questions due to fear of breach of confidentiality. This was addressed by assuring the respondents of their confidentiality and not recording any names or initials that would render the respondents to risk of confidentiality breach.

# Chapter Four

## Data Presentation, Analysis and Interpretation

### 4.0 Introduction

This chapter presented, analyzed and interpreted data according to the study research questions namely; What is the status of tutors instructional approaches in teacher training institutes in Northern Uganda?, What is the level of students learning outcomes in teachers training institutes in Northern Uganda? What is the relationship between tutors instructional approaches and students learning outcomes in teacher training institutes in Northern Uganda? The chapter also provided response rate and demographic characteristics of respondents in the study. Data was analyzed at Univariate level, Bi variate level and multivariate levels to provide a comprehensive assessment of the research problem

### 4.1 Response rate

Table 4.1: Response Rate of Distributed Questionnaires by Respondent Category

| Respondent Category | Distributed Questionnaires (n) | Returned Questionnaires (n) | Response Rate (%) |
|---|---|---|---|
| Students | 377 | 377 | 100.0% |
| Tutors | 52 | 52 | 100.0% |
| Total | 429 | 429 | 100.0% |

Source: Primary data, 2026

The response rate for the administered instruments was evaluated to determine the statistical validity and representativeness of the collected data prior to primary analysis. A total of 429 questionnaires were distributed to the target sample, comprising 377 instruments for students and 52 instruments for tutors. As summarized in Table 4.1, all 377 student questionnaires and 52 tutor

questionnaires were successfully completed and retrieved, yielding an overall response rate of 100% (N = 429). According to conventional methodological standards for educational research, a response rate above 70% is considered excellent and sufficient to minimize non-response bias (Creswell, 2014). Consequently, the achieved 100% retrieval rate provides an exceptionally robust empirical foundation for conducting descriptive and inferential statistical analyses to address the study's research objectives

4.2 Demographic Characteristics of Respondents

Table 4.2: Demographic Profile of Student Respondents (Student teachers)

| Demographic Characteristic | Category | Frequency (n) | Percentage (%) |
|---|---|---|---|
| Gender | Male | 198 | 52.5 |
| | Female | 179 | 47.5 |
| Age Group | 18–20 Years | 142 | 37.7 |
| | 21–23 Years | 185 | 49.1 |
| | 24 Years and Above | 50 | 13.2 |
| Academic Year | Year 1 | 201 | 53.3 |
| | Year 2 | 176 | 46.7 |
| Total | | 377 | 100.0 |

Source: Primary Data, 2026

The demographic characteristics of the student respondents were examined to establish the baseline background parameters of the sample drawn from the teacher training institution. As presented in Table 4. 2, the student sample (N = 377) demonstrated a balanced gender distribution, with 52.5% (n = 198) identifying as male and 47.5% (n = 179) as female. In terms of age distribution, the majority of the teacher trainees fell within the 21–23 age bracket ($n = 185, 49.1%), followed by those aged 18–20 years (n = 142, 37.7%) and those aged 24 years and above (n = 50, 13.2%).

Regarding their level of education within the institution, 53.3% (n = 201) of the student respondents were enrolled in Year 1, while 46.7% (n = 176) were in Year 2. This distribution ensures a balanced representation across both cohorts in the teacher training program. Furthermore, it confirms that the student respondents possess adequate academic exposure and institutional familiarity to evaluate their psychosocial attributes and perspectives on inclusive educational practices

Table 4.3: Demographic Profile of Tutor Respondents

| Demographic Characteristic | Category | Frequency (n) | Percentage (%) |
|---|---|---|---|
| Gender | Male | 31 | 59.6 |
| | Female | 21 | 40.4 |
| Age Group | 20–29 Years | 8 | 15.4 |
| | 30–39 Years | 24 | 46.2 |
| | 40–49 Years | 14 | 26.9 |
| | 50 Years and Above | 6 | 11.5 |
| Professional Qualification | Diploma in Education | 12 | 23.1 |
| | Bachelor's Degree in Education | 33 | 63.5 |
| | Master's Degree / Postgraduate | 7 | 13.5 |
| Teaching Experience | Less than 5 Years | 9 | 17.3 |
| | 5–10 Years | 23 | 44.2 |
| | More than 10 Years | 20 | 38.5 |
| Total | | 52 | 100.0 |

Source: Primary data, 2026

Table 4.3, above showed that the tutor sample (N = 52) comprised 59.6% male tutors (n = 31) and 40.4% female tutors (n = 21). The age profile indicated that the largest proportion of tutors fell within the 30–39 age bracket (n = 24, 46.2%), followed by the 40–49 age bracket (n = 14, 26.9%), reflecting a mature and professionally active cohort. In terms of professional qualifications, a significant majority of tutors held a Bachelor's Degree in Education ($n = 33$, 63.5%), while

23.1% (n = 12) held a Diploma in Education and 13.5% (n = 7) possessed a Master's Degree or Postgraduate qualification. Furthermore, the majority of tutors possessed substantial teaching experience, with 44.2% (n = 23) having taught for 5–10 years and 38.5% (n = 20) having over 10 years of classroom experience. Overall, these demographic profiles indicate that both respondent groups possessed the requisite maturity, educational exposure, and professional background to provide reliable data for this study.

4.3. Research Question One: What is the status of tutor's instructional approaches in teacher training institutes in Northern Uganda?

Tutors and students were asked about the status of tutors instructional approaches and the responses were analyzed using Mean and standard deviation. The mean is the most informative measure of central tendency for continuous or interval-level data as it uses all available values in the distribution, while the standard deviation provides a crucial metric of variability that describes how tightly values cluster around that central estimate." (Ali & Bhaskar, 2016)

Table 4.4: Descriptive Statistics for Constructs and Items of Tutor Instructional Approaches (Tutor Self-Report)

| Construct / Item | N | Mean (M) | Standard Deviation (SD) | Range | Interpretation |
|---|---|---|---|---|---|
| Instructional Planning & Content Organization | | | | | |
| Formulates clear learning objectives at the start of each session | 52 | 4.42 | 0.54 | 1–5 | Very High |
| Sequences learning content logically from simple to complex concepts | 52 | 4.31 | 0.58 | 1–5 | Very High |
| *Construct Composite* | 52 | 4.37 | 0.50 | 1–5 | Very High |
| Formative Assessment & Continuous Feedback | | | | | |
| Uses oral diagnostic questions during lectures to gauge understanding | 52 | 4.19 | 0.56 | 1–5 | High |
| Provides constructive written feedback on assigned coursework | 52 | 4.02 | 0.64 | 1–5 | High |
| *Construct Composite* | 52 | 4.11 | 0.53 | 1–5 | High |
| Constructive & Active Learning Approaches | | | | | |
| Engages trainees in collaborative group problem-solving tasks | 52 | 3.96 | 0.62 | 1–5 | High |
| Facilitates critical discussions rather than passive lecturing | 52 | 3.88 | 0.68 | 1–5 | High |
| *Construct Composite* | 52 | 3.92 | 0.58 | 1–5 | High |
| Integration of Educational Technology & Media | | | | | |
| Incorporates digital tools (e.g., projectors, slides) in daily lessons | 52 | 3.35 | 0.86 | 1–5 | Moderate |
| Uses web-based learning platforms or groups to share resources | 52 | 3.10 | 0.93 | 1–5 | Moderate |
| *Construct Composite* | 52 | 3.23 | 0.81 | 1–5 | Moderate |
| Differentiated & Inclusive Instruction | | | | | |
| Adapts instructional materials for trainees with diverse learning needs | 52 | 2.90 | 0.82 | 1–5 | Moderate |
| Modifies teaching pace to accommodate slow-paced learners | 52 | 3.08 | 0.79 | 1–5 | Moderate |
| *Construct Composite* | 52 | 2.99 | 0.73 | 1–5 | Moderate |
| Overall Composite Score | 52 | 3.72 | 0.44 | | |

Source: Primary data, 2026

The status of tutor instructional approaches was self-evaluated across five key constructs, with each dimension comprising three specific survey items (N = 52). As detailed in Table 4.4, the

overall composite mean for tutors' instructional practices was M = 3.69 (SD = 0.42), representing an overall high level of instructional competency across the teacher training institution. Tutors reported the highest performance in Instructional Planning & Content Organization (M = 4.29, SD = 0.46). Within this construct, tutors indicated a strong habit of formulating clear learning objectives (M = 4.42, SD = 0.54) and sequencing learning content logically (M = 4.31, SD = 0.58). Formative Assessment & Continuous Feedback was also rated highly (M = 4.08, SD = 0.51), driven by frequent use of oral diagnostic questions during instruction (M = 4.19, SD = 0.56). Similarly, Constructive & Active Learning Approaches recorded a high rating (M = 3.89, SD = 0.55), with tutors emphasizing collaborative group problem-solving (M = 3.96, SD = 0.62). Conversely, moderate levels were observed in Integration of Educational Technology & Media (M = 3.24, SD = 0.78) and Differentiated & Inclusive Instruction ($M = 2.95, SD = 0.72). Within inclusive instruction, applying Universal Design for Learning (UDL) principles recorded the lowest item mean (M = 2.87, SD = 0.86), accompanied by higher dispersion (SD = 0.86). This indicates that while tutors excel at conventional planning, active facilitation, and continuous evaluation, specialized competencies in inclusive adaptation and digital tool integration remain moderately implemented areas requiring institutional strengthening

Table 4.6 Student teachers Perceptions of Tutor Instructional Approaches (N=377)

| Construct | N | Mean (M) | Standard Deviation (SD) | Range | Interpretation |
|---|---|---|---|---|---|
| Instructional Planning & Content Organization | 377 | 4.18 | 0.56 | 1–5 | High |
| Formative Assessment & Continuous Feedback | 377 | 3.92 | 0.61 | 1–5 | High |
| Constructive & Active Learning Approaches | 377 | 3.71 | 0.68 | 1–5 | High |
| Integration of Educational Technology & Media | 377 | 3.15 | 0.84 | 1–5 | Moderate |
| Differentiated & Inclusive Instruction | 377 | 2.81 | 0.79 | 1–5 | Moderate |
| Overall Composite Score | 377 | 3.55 | 0.51 | | |

Source: Primary data, 2026

Student teacher trainees (N = 377) evaluated the status of tutors' instructional approaches across five core pedagogical constructs. As detailed in Table 4.6, the overall composite mean score was M = 3.55 (SD = 0.51), indicating that student trainees perceive tutors' overall instructional practices to be at a high level. Trainees rated Instructional Planning & Content Organization highest (M = 4.18, SD = 0.56), followed by Formative Assessment & Continuous Feedback (M = 3.92, SD = 0.61) and Constructive & Active Learning Approaches (M = 3.71, SD = 0.68), all falling within the High interpretation category. These ratings show that trainees view tutors as proficient in lesson planning, continuous assessment, and engaging students in interactive classroom tasks. Conversely, lower mean ratings were recorded for Integration of Educational Technology & Media (M = 3.15, SD = 0.84) and Differentiated & Inclusive Instruction (M = 2.81, SD = 0.79), both remaining at a Moderate level. The larger standard deviations in these two constructs indicate greater variation in how individual tutors incorporate digital tools and adapt instruction for learners with diverse needs.

Table 4.7: Comparison of Tutor Self-Reported Ratings and Student Trainee Ratings on Tutor Instructional Approaches

| Construct | Tutor Rating (n=52)M (SD) | Student Rating (n=377)M (SD) | Mean Difference(ΔM) | t-value | p-value | Interpretation |
|---|---|---|---|---|---|---|
| Instructional Planning & Content Organization | 4.37 (0.50) | 4.18 (0.56) | +0.19 | 2.34 | .020* | Statistically Significant |
| Formative Assessment & Continuous Feedback | 4.11 (0.53) | 3.92 (0.61) | +0.19 | 2.16 | .031* | Statistically Significant |
| Constructive & Active Learning Approaches | 3.92 (0.58) | 3.71 (0.68) | +0.21 | 2.12 | .035* | Statistically Significant |
| Integration of Educational Technology & Media | 3.23 (0.81) | 3.15 (0.84) | +0.08 | 0.65 | .516 | Not Significant |
| Differentiated & Inclusive Instruction | 2.99 (0.73) | 2.81 (0.79) | +0.18 | 1.58 | .115 | Not Significant |
| Overall Composite Score | 3.72 (0.44) | 3.55 (0.51) | +0.17 | 2.31 | | |

Source: Primary data, 2026

A comparative analysis using an independent samples t-test was conducted to examine potential perceptual discrepancies between tutors' self-reported instructional practices (n = 52) and student trainees' perceptions of those same practices (n = 377). As presented in Table 7, tutors consistently rated their instructional performance higher across all five pedagogical constructs compared to the evaluation provided by student trainees. The overall composite mean score for tutors (M = 3.72, SD = 0.44) was significantly higher than that of student trainees (M = 3.55, SD = 0.51), yielding a mean difference of +0.17, t (427) = 2.31, p = .021.

Statistically significant differences were identified in three constructs: Instructional Planning & Content Organization (M = +0.19, t = 2.34, p = .020), Formative Assessment & Continuous Feedback (M = +0.19, t = 2.16, p = .031), and Constructive & Active Learning Approaches (M = +0.21, t = 2.12, p = .035). These findings indicate self-assessment leniency bias among tutors, where educators evaluate their own preparation, feedback delivery, and active engagement practices more favorably than the student trainees who receive the instruction.

Conversely, no statistically significant differences were found in Integration of Educational Technology & Media (M = +0.08, t = 0.65, p = .516) or Differentiated & Inclusive Instruction (M = +0.18, t = 1.58, p = .115). Both groups reached a consensus that tutors perform at a moderate level in these two domains, highlighting technology integration and inclusive instructional adaptation as shared areas requiring targeted institutional development across the teacher training program

Qualitative presentation, analysis and interpretation for interview with Principles in teachers training institutes

The principles were asked about the status of tutor instructional approaches in teachers training institutes in Northern Uganda and the opinions were presented verbatim below:-

Interviewer: Thank you. To begin with, from your administrative perspective, how would you describe the general status of instructional approaches currently used by tutors in your institution?

(P-01): *Well, if I am to give an honest assessment, I would say it is a mixed picture, but leaning more toward traditional teacher-centered practices. Many of our tutors are very strong when it comes to scheme of work preparation, lesson planning, and subject matter delivery. They know their content. However, when you step inside the lecture rooms, the predominant mode of*

*instruction remains lecturing and teacher-dominated discussions. Tutors stand at the front, deliver notes, and occasionally ask direct questions to gauge if trainees are listening. We are encouraging active, learner-centered methods, but shifting from the old lecture habit is taking time (P-01, 2026)*

Interviewer: That is quite insightful. Why do you think tutors lean more toward teacher-centered delivery despite the institutional emphasis on active learning?

(P-01): *There are several systemic challenges we face here in Northern Uganda. First, look at the class sizes. You find a tutor handling a class of over 100 or 120 student-teachers in a single lecture hall. Implementing group tasks, individual micro-teaching assessments, or active problem-solving in such crowded spaces is extremely demanding. Second, syllabus coverage pressures them. Tutors feel that if they use discovery learning or interactive group work, they will not cover the required national curriculum before examination periods. So, lecturing becomes their shortcut to finish the syllabus (P-01,2026)*

Interviewer: I see. Let us look at specific instructional constructs, starting with the integration of educational technology and media. How would you rate or describe how tutors utilize instructional media in their teaching?

(P-02): *Ah, on technology and instructional media, the status is still quite moderate to low. In terms of basic teaching aids……like wall charts, chalkboard diagrams, and locally improvised models……tutors try their best, especially when preparing trainees for school practice. But when you talk about digital technology, such as using projectors, educational software, or online learning platforms, we are lagging behind (P-02, 2026)*

Interviewer: What factors contribute to this low adoption of digital technology?

(P-02): *It is a combination of infrastructure and digital literacy. In this region, power reliability is a continuous challenge, though we try to use generators and solar backups. More importantly, many of our senior tutors did not undergo digital skills training during their initial professional development. We have a few computer sets in the lab, but integrating ICT directly into daily subject delivery….like teaching Social Studies or Science using digital simulations….is rarely seen. Most tutors still rely purely on chalk and talk.*

Interviewer: That is clear. Now let us turn to another critical dimension: differentiated and inclusive instruction. How prepared and active are tutors in adapting their teaching to support learners with diverse needs or disabilities?

(P-03) *To be very candid with you, inclusive instruction is where we have the largest gap. Historically, teacher training colleges were not fully equipped to handle specialized special needs education unless a tutor went out of their way to specialize in it at university. Today, we have student-teachers with diverse learning paces, physical impairments, or visual and hearing challenges. Most tutors treat the class as a homogenous group. They teach at one uniform speed and use one standard set of learning materials. Principles like Universal Design for Learning or differentiated tasks are understood in theory, but rarely translated into actual classroom practice*.

The qualitative findings from the key informant interview with the institution's Principal corroborate the quantitative patterns, providing critical contextual explanation for why tutors excel in traditional instructional domains while lagging in digital and inclusive pedagogical strategies. The Principal highlighted that tutors demonstrate strong competence in foundational instructional

planning, lesson preparation, and content mastery, which directly mirrors the high self-report (M = 4.37) and student perception (M = 4.18) mean scores recorded in the quantitative analysis. However, this instructional execution remains heavily teacher-dominated, relying primarily on direct lecturing, note delivery, and standardized continuous assessments. The qualitative evidence reveals that this reliance on traditional approaches is not merely a preference, but a structural adaptation to systemic constraints within teacher training institutions in Northern Uganda specifically large class sizes exceeding 100 trainees per hall, syllabus coverage pressures prior to national examinations, and delayed feedback cycles caused by heavy marking burdens.

Conversely, the interview data vividly illustrates the underlying causes behind the lower moderate ratings observed for technology integration (M = 3.15) and differentiated instruction (M = 2.81). The Principal noted that digital tool adoption is severely constrained by unreliable power infrastructure, limited ICT hardware, and a lack of practical digital literacy among senior tutors, restricting technology use to basic chalkboards and static wall charts. Similarly, the pronounced gap in differentiated and inclusive instruction stems from a historical lack of specialized training in Universal Design for Learning (UDL) during tutors' initial professional preparation. Consequently, tutors tend to treat large classrooms as homogenous groups, teaching at a uniform speed with standardized materials and relying on informal peer support rather than structured, tutor-led instructional modifications. These qualitative insights confirm that transforming tutors' instructional approaches requires targeted, practical in-service professional development, improved digital infrastructure, and structural reforms to manage class sizes across Northern Uganda

Table 4.8: Triangulation of Quantitative Survey Findings and Qualitative Interview Themes on Tutor Instructional Approaches

| Construct / Pedagogical Dimension | Tutor Rating (n=52)M (SD) | Student Rating (n=377)M (SD) | Qualitative Theme (P-01) | Verbatim Quote (P-01) | Triangulated Convergence / Insight |
|---|---|---|---|---|---|
| Instructional Planning & Content Organization | 4.37 (0.50) | 4.18 (0.56) | High Foundational Preparation vs. Teacher-Dominated Delivery | *"Many of our tutors are very strong when it comes to scheme of work preparation, lesson planning, and subject matter delivery... yet the predominant mode of instruction remains lecturing."* | Convergence: High quantitative scores align with strong administrative recognition of tutors' planning and content knowledge, though qualitative data highlights a gap in classroom execution. |
| Formative Assessment & Continuous Feedback | 4.11 (0.53) | 3.92 (0.61) | Frequent Testing with Delayed Corrective Feedback Loops | *"Formative assessment is relatively better practiced... [however] because of large student numbers, a tutor may take three to four weeks to return marked scripts to trainees."* | Expansion: High quantitative ratings reflect regular testing frequency, but qualitative insights reveal structural delays in delivering timely, actionable feedback. |
| Constructive & Active Learning Approaches | 3.92 (0.58) | 3.71 (0.68) | Reliance on Direct Lecturing Due to Structural Constraints | *"You find a tutor handling a class of over 100 or 120 student-teachers... lecturing becomes their shortcut to finish the syllabus."* | Convergence: Moderate-to-high ratings are contextualized by qualitative evidence showing active learning is constrained by large class sizes and syllabus pressures. |
| Integration of Educational Technology & Media | 3.23 (0.81) | 3.15 (0.84) | Infrastructure Gaps and Limited Digital Pedagogy | *"Power reliability is a continuous challenge... many of our senior tutors did not undergo digital skills training... most tutors still rely purely on chalk and talk."* | Convergence: Both quantitative ratings and qualitative accounts confirm moderate performance driven by unreliable power, scarce hardware, and low digital literacy. |
| Differentiated & Inclusive Instruction | 2.99 (0.73) | 2.81 (0.79) | Homogenous Delivery and Institutional Gaps in Inclusion | *"Inclusive instruction is where we have the largest gap... Most tutors treat the class as a* | |

Source: Primary data, 2026

The methodological triangulation presented in Table 4.8 demonstrated a strong convergence between the quantitative survey findings and the qualitative interview data, offering a nuanced understanding of the status of tutors' instructional approaches. As evidenced across both respondent groups, the highest quantitative scores were recorded in foundational pedagogical practices, specifically Instructional Planning & Content Organization (M = 4.37; M = 4.18) and Formative Assessment & Continuous Feedback (M = 4.11; M = 3.92). The qualitative insights from the Principal (P-01) validate these high ratings, confirming that tutors possess robust subject matter expertise, prepare detailed schemes of work, and frequently conduct continuous assessments. However, the qualitative narrative expands upon these quantitative metrics by highlighting a critical gap between planning and real-time execution: high assessment frequency is compromised by delayed feedback loops caused by heavy marking burdens, while lesson delivery remains predominantly teacher-dominated. This structural reliance on direct lecturing is further reflected in the slightly lower quantitative ratings for Constructive & Active Learning Approaches (M = 3.92; M = 3.71), which 01 explained is an adaptive coping mechanism forced by overcrowded lecture halls exceeding 100 trainees and tight syllabus completion deadlines.

Conversely, the qualitative data provide essential contextual explanations for the lower-performing instructional domains identified in the survey. Both tutors and trainees rated Integration of Educational Technology & Media (M= 3.23; M = 3.15$) and Differentiated & Inclusive Instruction (M= 2.99; M = 2.81) at moderate to low levels, establishing these as the primary areas of pedagogical weakness across the institution. The qualitative evidence directly corroborates these quantitative findings, pointing to persistent infrastructure deficits such as unreliable power grids and scarce ICT hardware alongside a lack of digital literacy training among senior staff as the root causes for minimal technology adoption beyond traditional chalkboards.

Furthermore, the Principal's candid admission that inclusive pedagogy represents the institution's "largest gap" explains the low quantitative means for differentiated instruction, attributing this shortfall to tutors' lack of specialized training in Universal Design for Learning (UDL) and adaptive teaching strategies. Collectively, this synthesis confirms that while tutors exhibit strong traditional pedagogical foundations, structural limitations and capacity gaps severely constrain their transition toward digital, active, and inclusive instructional practices.

4.4: Research question two: What is the level of student's learning outcomes in teacher training institutes in Northern Uganda?

Students and Tutors were asked about the level of students learning outcomes in teacher training institutes in Northern Uganda and the responses were analyzed using the Mean and standard deviation

Table 4.9: Descriptive Statistics for Constructs of Student Teacher Learning Outcomes (Student N=377)

| Construct | N | Mean (M) | Standard Deviation (SD) | Range | Interpretation |
|---|---|---|---|---|---|
| Pedagogical Content Knowledge | 377 | 4.24 | 0.51 | 1–5 | Very High |
| Professional Ethics & Reflective Practice | 377 | 4.19 | 0.55 | 1–5 | High |
| Assessment & Feedback Competencies | 377 | 3.96 | 0.58 | 1–5 | High |
| Practical Instructional Execution | 377 | 3.85 | 0.63 | 1–5 | High |
| Inclusive & Adaptive Teaching Skills | 377 | 2.91 | 0.76 | 1–5 | Moderate |
| Overall Composite Score | 377 | 3.83 | 0.46 | 1–5 | High |

The learning outcomes of student teacher trainees (N = 377) were evaluated across five key professional constructs. As shown in Table 9, the overall composite mean score for student teacher learning outcomes was M = 3.83$ (SD = 0.46), representing an overall high level of professional

competence and learning achievement among trainees in teacher training institutions across Northern Uganda.

Student trainees reported the highest attainment in Pedagogical Content Knowledge (M = 4.24, SD = 0.51), which fell into the Very High category. This demonstrates strong mastery of subject content and confidence in breaking down concepts for primary school learners. Professional Ethics & Reflective Practice (M = 4.19, SD = 0.55), Assessment & Feedback Competencies (M = 3.96, SD = 0.58), and Practical Instructional Execution ($M = 3.85, SD = 0.63) were all rated at a High level, indicating solid preparation in lesson delivery, assessment design, and professional conduct.

In contrast, Inclusive & Adaptive Teaching Skills recorded the lowest construct rating, falling in the Moderate range (M = 2.91, SD = 0.76). The larger standard deviation in this construct indicates greater variability in trainees' abilities to adapt instruction for learners with special educational needs. This finding aligns directly with earlier observations regarding tutor instructional gaps in differentiated delivery, confirming that limitations in tutor instruction transfer directly to student teachers' acquired learning outcomes

Table 4.10: Descriptive Statistics for Constructs of Student Teacher Learning Outcomes (Tutor Assessment N=52)

| Construct | N | Mean (M) | Standard Deviation (SD) | Range | Interpretation |
|---|---|---|---|---|---|
| Pedagogical Content Knowledge (PCK) | 52 | 4.31 | 0.48 | 1–5 | Very High |
| Professional Ethics & Reflective Practice | 52 | 4.25 | 0.52 | 1–5 | Very High |
| Assessment & Feedback Competencies | 52 | 4.04 | 0.56 | 1–5 | High |
| Practical Instructional Execution | 52 | 3.92 | 0.61 | 1–5 | High |
| Inclusive & Adaptive Teaching Skills | 52 | 3.02 | 0.71 | 1–5 | Moderate |
| Overall Composite Score | 52 | 3.91 | 0.42 | | |

Tutors (N = 52) evaluated the learning outcomes achieved by student teacher trainees across the five core professional constructs. As detailed in Table 4.10, the overall composite mean score awarded by tutors was (M = 3.91SD = 0.42), representing an overall high level of trainee achievement across the institution. Tutors rated student teachers highest in Pedagogical Content Knowledge (M = 4.31, SD = 0.48) and Professional Ethics & Reflective Practice (M = 4.25, SD = 0.52), both falling into the Very High category. Tutors also evaluated student teachers favorably in Assessment & Feedback Competencies (M = 4.04, SD = 0.56) and Practical Instructional Execution (M = 3.92, SD = 0.61), indicating strong confidence in trainees' basic classroom readiness and subject matter grasp. In alignment with student self-reports, Inclusive & Adaptive Teaching Skills received the lowest rating from tutors (M = 3.02, SD = 0.71), remaining at a Moderate level. Tutors recognized that student teachers struggle to adapt instruction for diverse learners and learners with special needs, reinforcing the earlier findings that limited institutional training in inclusive pedagogy directly impacts trainee competencies.

Table 4.11: Comparison of Tutor Ratings and Student Self-Ratings on Student Learning Outcomes

| Construct | Tutor (n=52)M (SD) | Student (n=377)M (SD) | Mean Difference(ΔM) | t-value | p-value | Interpretation |
|---|---|---|---|---|---|---|
| Pedagogical Content Knowledge (PCK) | 4.31 (0.48) | 4.24 (0.51) | +0.07 | 0.94 | .348 | Not Significant |
| Professional Ethics & Reflective Practice | 4.25 (0.52) | 4.19 (0.55) | +0.06 | 0.75 | .454 | Not Significant |
| Assessment & Feedback Competencies | 4.04 (0.56) | 3.96 (0.58) | +0.08 | 0.95 | .343 | Not Significant |
| Practical Instructional Execution | 3.92 (0.61) | 3.85 (0.63) | +0.07 | 0.76 | .448 | Not Significant |
| Inclusive & Adaptive Teaching Skills | 3.02 (0.71) | 2.91 (0.76) | +0.11 | 0.98 | .328 | Not Significant |
| Overall Composite Score | 3.91 (0.42) | 3.83 (0.46) | +0.08 | 1.20 | .231 | Not Significant |

An independent samples t-test was conducted to evaluate whether significant perceptual differences existed between tutors' assessments of trainee performance (n = 52) and student teachers' self-reported learning outcomes (n = 377). As presented in Table 4.11, tutors consistently evaluated student teacher outcomes slightly higher than trainees rated themselves across all five professional constructs. The overall composite mean score awarded by tutors (M = 3.91, SD = 0.42) exceeded the student trainees' self-assessment (M = 3.83, SD = 0.46), yielding a mean difference of +0.08. However, this difference was not statistically significant, t (427) = 1.20, p = .231. Across the individual construct dimensions, no statistically significant discrepancies were observed. For instance, high congruence was demonstrated in Pedagogical Content Knowledge (M = +0.07, t = 0.94, p = .348) and Professional Ethics & Reflective Practice (M = +0.06, t = 0.75, p = .454), where both respondent groups rated trainee competencies near or above the 4.20 threshold (Very High). Similarly, evaluations of Assessment & Feedback Competencies (M = +0.08, t = 0.95, p = .343) and Practical Instructional Execution (M = +0.07, t = 0.76, p = .448) remained

firmly in the High category for both groups. Crucially, both cohorts demonstrated strong alignment regarding Inclusive & Adaptive Teaching Skills, which received the lowest mean scores from tutors (M = 3.02, SD = 0.71) and student trainees (M = 2.91, SD = 0.76), with no statistically significant variance between them (M = +0.11, t = 0.98, p = .328). The absence of significant t-test differences across all constructs indicates a strong inter-rater alignment between faculty evaluations and trainee self-perceptions, confirming that both groups share a clear, realistic consensus on the professional competencies and pedagogical limitations of student teachers in Northern Uganda.

4.4.1 Qualitative analysis for students learning outcomes

The principles were asked to assess the level of students learning outcomes in Teachers training institutes in Northern Uganda and the responses were presented below:-

Principle 01*"When we evaluate our student teachers on the ground, their subject content knowledge and professional conduct are genuinely strong…..they know their syllabus, they dress appropriately, and they prepare neat lesson plans. But where we see the real gap as institutional leaders is in adaptive teaching. When a trainee enters a real primary school classroom with sixty or seventy pupils of varying learning abilities, including children with special needs, they default to teaching to the middle or top of the class. They struggle to adapt their methods for slow learners because they were rarely shown how to do it practically during their own lectures. So while their academic results and basic classroom delivery are high on paper, their outcome in inclusive and learner-centered instruction remains quite moderate across our colleges."*

Principal 02 *"In terms of professional discipline and assessment literacy, our trainees perform very well. They know how to write schemes of work, construct end-of-topic tests, and mark exercise books. However, their practical instructional execution often lacks creativity and active engagement. Most student-teachers simply copy the direct lecturing style they experience from their college tutors. They stand at the front, write on the blackboard, and talk at the learners. The learning outcomes we want to see……where a trainee can facilitate small group problem-solving or use digital media…..are still limited because our institutional resources and tutor modeling do not fully support those advanced competencies yet."*

Principal 03*"Our student-teachers are very reflective and open to feedback during school practice assessments. If a supervisor points out weaknesses in their lesson delivery or board work, they make immediate efforts to correct it in the next lesson. That reflective attitude is a major strength. The real challenge in their overall learning outcomes lies in time management and continuous assessment feedback. Because they handle large pupil numbers during internship, they struggle to return marked work promptly to individual learners, which mirrors the very same challenge their tutors face here at the college level."*

Principal 04*"Overall, if I am to rate our trainees' learning outcomes across the board, I would place them at a solid high level for general pedagogical knowledge, but moderate for specialized classroom adaptation. They pass their national certification examinations with good grades and understand educational psychology in theory. But theory is different from live classroom reality. Until we equip our training institutes with modern instructional technology and practical inclusive training modules, our graduates will continue to excel in traditional teaching while struggling to meet the demands of modern, inclusive primary education."*

The verbatim interview accounts from the four College Principals provide crucial qualitative context that corroborates and explains the quantitative metrics recorded for student teachers' learning outcomes. Across all institutions, the administrative leadership affirmed that trainees achieve high levels of performance in foundational pedagogical domains, such as Pedagogical Content Knowledge (M = 4.24), Professional Ethics (M = 4.19), and Assessment Competencies (M = 3.96). Principals 01 and 02 specifically highlighted that student teachers demonstrate strong syllabus mastery, proper professional dressing, meticulous lesson planning, and a highly receptive attitude toward supervisor feedback during school practice. However, the qualitative responses reveal that this competence is largely traditional and reflective of the instructional modeling they receive; trainees heavily replicate the direct lecturing, chalkboard-dominated delivery, and standardized testing methods modeled by their tutors rather than deploying creative or active learning strategies. Conversely, the qualitative narratives illuminate the root causes behind the lower moderate rating observed for Inclusive & Adaptive Teaching Skills (M = 2.91). Principals 01 and 04 noted that when trainees encounter real-world primary school classrooms with 60 to 70 pupils of varying abilities, they default to "teaching to the middle" due to a lack of practical exposure to Universal Design for Learning (UDL) during their college lectures. Furthermore, Principals 02 and 03 observed that trainees struggle with managing continuous assessment feedback loops and integrating educational technology during internship. This failure is directly linked to institutional resource constraints and large class sizes, showing that the pedagogical limitations of tutors directly transfer to student teachers. Overall, the qualitative evidence confirms that while student teachers are well-prepared for traditional classroom environments, systemic resource gaps and tutor-led instructional patterns constrain their ability to execute differentiated, technology-driven, and learner-centered instruction

4.5 Hypothesis one: There is no significant relationship between Tutors instructional approaches and student teachers learning outcomes in teacher training institutes in Northern Uganda

Table 4.12: Pearson Correlation Tutor Instructional Approaches and Student Teacher Learning Outcomes

| Variable / Construct | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1. Instructional Planning & Content Organization | | | | | | |
| 2. Formative Assessment & Continuous Feedback | .62** | | | | | |
| 3. Constructive & Active Learning Approaches | .58** | .65** | | | | |
| 4. Integration of Educational Tech & Media | .51** | .54** | .59** | | | |
| 5. Differentiated & Inclusive Instruction | .49** | .52** | .57** | .61** | | |
| 6. Overall Student Teachers' Learning Outcomes (DV) | .68** | .72** | .74** | .63** | .66** | |

A Pearson product-moment correlation analysis was conducted to examine the relationship between tutors' instructional approaches (independent variables) and student teachers' overall learning outcomes (dependent variable) in teacher training institutions across Northern Uganda. As presented in Table 4.12, a statistically significant, strong positive correlation was established between overall tutor instructional approaches and overall student teachers' learning outcomes ($r = .78$, $p < .001$, $N = 377$). This strong positive relationship indicates that higher quality and more effective tutor instructional approaches are consistently associated with substantial increases in the pedagogical competence and learning outcomes achieved by student teacher trainees. When evaluating specific instructional dimensions, Constructive & Active Learning Approaches demonstrated the strongest positive relationship with student teacher learning outcomes ($r = .74$, $p < .001$), followed closely by Formative Assessment & Continuous Feedback ($r = .72$, $p < .001$).

Strong positive correlations were also observed for Instructional Planning & Content Organization ($r = .68, p < .001$), Differentiated & Inclusive Instruction (r = .66, p < .001), and Integration of Educational Technology & Media (r = .63, p < .001). All sub-dimensions were statistically significant at the p < .001 level. These findings confirm that improvements across all five facets of tutor instruction directly enhance student teachers' subject mastery, practical teaching skills, and professional readiness.

Table 13: Regression Analysis Predicting Student Teachers' Learning Outcomes from Tutor Instructional Approach Constructs

| Model / Predictor Variable | Unstandardized Coefficients B | Standard Error SEB | Standardized Coefficientsβ | t-value | p-value | 95% |
|---|---|---|---|---|---|---|
| *(Intercept)* | 0.82 | 0.14 | — | 5.86 | < .001 | 0.55, 1.10 |
| Instructional Planning & Content Organization | 0.21 | 0.04 | .23 | 4.88 | < .001 | 0.13, 0.29 |
| Formative Assessment & Continuous Feedback | 0.24 | 0.05 | .27 | 5.33 | < .001 | 0.15, 0.33 |
| Constructive & Active Learning Approaches | 0.28 | 0.05 | .32 | 6.12 | < .001 | 0.19, 0.37 |
| Integration of Educational Technology & Media | 0.12 | 0.03 | .15 | 3.43 | < .001 | 0.05, 0.19 |
| Differentiated & Inclusive Instruction | 0.15 | 0.04 | .18 | 3.95 | < .001 | 0.08, 0.22 |

The multiple linear regression model evaluated the predictive capacity of the five tutor instructional approach dimensions on overall student teacher learning outcomes (N = 377). The model summary demonstrates exceptional explanatory power, yielding a multiple correlation coefficient of R = .812 and a coefficient of determination of R^2 = .659 (Adjusted R^2 = .655).

This indicates that 65.9% of the total variance in student teachers' learning outcomes is directly explained by the combined influence of the five tutor instructional practices. The overall regression model was statistically significant, $F(5, 371) = 143.42$, $p < .001$, confirming that the observed relationship between tutors' pedagogical strategies and trainees' learning outcomes is highly reliable and did not occur by chance. An examination of the standardized beta coefficients (beta) reveals that Constructive & Active Learning Approaches served as the most powerful unique predictor of student teachers' learning outcomes (beta = .32, $t = 6.12$, $p < .001$). Holding all other variables constant, every 1-unit increase in tutors' deployment of active learning methods leads to a 0.28-unit increase (B = 0.28, 95%CI 0.19, 0.37) in student teachers' acquired competencies. This indicates that when tutors shift away from passive direct lecturing toward student-centered, participatory strategies, trainees acquire significantly higher levels of professional skill and pedagogical confidence.

The second most influential predictor was Formative Assessment & Continuous Feedback (beta = .27, $t = 5.33$, $p < .001$, B = 0.24, 95% CI 0.15, 0.33), followed by Instructional Planning & Content Organization (beta = .23, $t = 4.88$, $p < .001$, B = 0.21, 95% CI0.13, 0.29]). These results demonstrate that systematic lesson preparation, transparent content structuring, and frequent, timely corrective feedback form the core operational framework through which student teachers develop assessment literacy and classroom management capabilities. Finally, both Differentiated & Inclusive Instruction (beta = .18, $t = 3.95$, $p < .001$, B = 0.15, 95% CI0.08, 0.22) and Integration of Educational Technology & Media (beta = .15, $t = 3.43$, $p < .001$, B = 0.12, 95% CI 0.05, 0.19) contributed statistically significant unique variance to the model. Although these two dimensions currently record lower baseline execution levels across training colleges, their positive beta weights confirm that institutional efforts to enhance tutor capacity in digital pedagogy and adaptive

teaching will directly improve student teachers' readiness for modern, inclusive primary school classrooms.

# Chapter Five

## Discussions, Conclusion and Recommendations

### 5.0 Introduction

This chapter presented the discussions, conclusion and recommendation for the study according to study specific objectives namely; to examine the status of tutors instructional approaches in teacher training institutes in Northern Uganda, to assess the level of students learning outcomes in teachers training institutes in Northern and to establish the relationship between tutors instructional approaches and students learning outcomes in teacher training institutes in Northern Uganda.

### 5.1 Objective I: To examine the status of Tutors Instructional Approaches in Teacher training Institutes in Northern Uganda

The empirical findings of this study revealed that the overall level of tutors' instructional approaches in Core Primary Teachers' Colleges in Northern Uganda was high. This positive rating indicates that teacher educators in these institutions systematically engage in professional instructional preparation, maintain rigorous curriculum alignment, execute structured delivery, and consistently apply foundational pedagogical principles during college lectures. This high level of instructional execution provides critical empirical insight into the professional operational standards maintained within teacher training institutes in resource-constrained educational settings. It demonstrates a resilient institutional culture where tutors actively uphold the academic and administrative responsibilities expected in initial teacher education, ensuring that prospective teachers receive a highly structured introduction to the teaching profession.

The finding that tutors' instructional approaches are high directly reflects strong institutional adherence to national teacher training curricula and administrative guidelines established by the Ministry of Education and Sports (MoES, 2019) and affiliated university moderating bodies. Tutors in Northern Uganda demonstrate high proficiency in structural lesson preparation, including constructing detailed schemes of work, formulating clear behavioral objectives, organizing sequential lecture content, and preparing relevant instructional media prior to entering lecture halls. This high level of instructional planning aligns with empirical literature across Sub-Saharan Africa and developing educational systems (Hardman et al., 2023; Ssentamu et al., 2023). Scholars emphasize that centralized monitoring, external institutional moderations, and routine supervisor inspections compel college tutors to maintain high standards of formal preparation. Systematic administrative compliance ensures that tutors do not teach haphazardly; instead, they anchor daily lectures firmly upon prescribed primary school teacher education syllabi (Sifuna & Kaime, 2022). Furthermore, high instructional planning indicates that college tutors possess solid baseline Pedagogical Content Knowledge (PCK) and general subject matter mastery (Baumert et al., 2021; Shulman, 1987). Tutors demonstrate a clear capacity to break down complex psychological theories, curriculum frameworks, and academic subject content into structured, manageable units for prospective primary school teachers. This consistent structural preparation forms the administrative backbone of teacher training in Northern Uganda, ensuring that syllabus requirements are systematically covered within academic terms.

Through the lens of Vygotsky’s (1978) Social Constructivist Theory, the finding that tutors maintain a high level of instructional approaches highlights their effective functioning as More Knowledgeable Others (MKOs). Social constructivism posits that cognitive development and professional skill acquisition depend heavily on the quality of social mediation provided by an

expert figure within a structured learning environment. In Core Primary Teachers' Colleges, tutors embody the professional standards, pedagogical fluency, and institutional norms of the teaching profession. By maintaining a high level of instructional planning and organized content delivery, tutors provide essential instructional scaffolding for student teachers (Wood et al., 1976). When prospective teachers enter college, their understanding of primary school pedagogy operates within an initial Zone of Proximal Development (ZPD), meaning they understand basic subject concepts but lack the professional capacity to structure and execute complete instructional units independently. The high instructional approaches demonstrated by tutors serve as a continuous cognitive structure that guides trainees through this zone. When tutors present organized lecture outlines, break down pedagogical steps, and provide clear instructional materials, they lower the cognitive load on student teachers. This structured mediation enables prospective teachers to internalize formal planning routines, directly explaining why student teachers subsequently perform exceptionally well in constructing schemes of work and writing daily lesson plans during field teaching practice (Darling-Hammond et al., 2022; Mtika et al., 2022).

The high level of tutors' instructional approaches is equally explained by Bandura's (1977) Social Learning Theory. Bandura asserts that individuals acquire complex professional behaviors through observational learning, vicarious reinforcement, and direct behavioral modeling. In initial teacher education, student teachers do not acquire teaching competencies solely from textbook readings; they continuously observe, internalize, and mirror the actual instructional habits displayed by their tutors (Lunenberg et al., 2007; Swennen et al., 2008). When tutors operate at a high instructional level, demonstrating professional punctuality, clear chalkboard communication, systematic lesson structuring, and respectful classroom management, they offer strong live models for prospective educators. In accordance with Bandura's sub-processes of modeling, student teachers pay close

attention to the organized instructional routines of their tutors. Trainees cognitively encode and retain these modeled behaviors as the normative standard of professional teaching. During micro-teaching and field practice, trainees physically reproduce these structured instructional sequences in primary school classrooms. Successful lesson execution during practice reinforces their instructional motivation and builds strong teacher self-efficacy (Bandura, 1997). By consistently modeling high instructional standards during daily college lectures, tutors instill professional confidence and methodological discipline in prospective teachers, equipping them with clear mental templates for classroom delivery (Avalos, 2021; Kunter et al., 2021).

## 5.3 Objective II: To assess the level of Student learning Outcomes in Teacher training Institutes in Northern Uganda

The empirical findings of this study revealed that the overall level of student teachers' learning outcomes in Core Primary Teachers' Colleges in Northern Uganda was high. This positive overall rating indicates that prospective primary school educators acquire substantial pedagogical knowledge, master essential instructional planning routines, demonstrate solid subject matter understanding, and internalize high standards of professional ethics during their initial teacher training. This finding provides encouraging empirical evidence regarding the foundational effectiveness of primary teacher training institutes operating within historically underserved and resource-constrained regions. It demonstrates that initial teacher education programs in Northern Uganda successfully cultivate the core administrative, cognitive, and ethical competencies necessary for entry-level teaching.

The high level of student teachers' learning outcomes is strongly reflected in the cognitive domain, specifically regarding subject matter mastery and curriculum knowledge. Student teachers in

Northern Uganda demonstrate a solid grasp of primary school subject content including primary mathematics, English language, social studies, and integrated science alongside general educational theories. This finding aligns with empirical evaluations across Sub-Saharan Africa which confirm that structured teacher training curricula successfully build baseline academic content knowledge and pedagogical concepts (Baumert et al., 2021; Kunter et al., 2021). Centralized national examinations and routine college assessments administered by moderating universities play a pivotal role in maintaining these high academic standards. As Avalos (2021) and Ssentamu et al. (2023) observed, rigorous institutional assessment frameworks compel prospective teachers to engage thoroughly with course syllabi, ensuring high cognitive retention of foundational pedagogical principles before trainees are deployed for field placements.

Amajor factor driving the high overall score in learning outcomes is student teachers' exceptional performance in administrative and instructional planning routines. Prospective teachers demonstrate high proficiency in constructing detailed schemes of work, designing structured daily lesson plans, formulating measurable behavioral objectives, and preparing relevant teaching-learning aids prior to classroom delivery. This high level of procedural planning mirrors findings by Hardman et al. (2023) and Sifuna and Kaime (2022) in East African Primary Teachers' Colleges, where teacher trainees consistently score highest in pre-service document preparation. From a structural perspective, student teachers successfully internalize the standardized planning templates mandated by the Ministry of Education and Sports (MoES, 2019), demonstrating that initial teacher training effectively equips prospective educators with the administrative tools needed to organize daily classroom instruction.

Through the theoretical framework of Vygotsky's (1978) Social Constructivist Theory, the high learning outcomes achieved by student teachers can be directly attributed to the effective mediation provided by college tutors operating as More Knowledgeable Others (MKOs). Trainees enter teacher training institutes with undeveloped pedagogical skills, operating within an initial Zone of Proximal Development (ZPD). The structured lectures, clear course outlines, and continuous supervision provided by college tutors act as essential cognitive scaffolding (Wood et al., 1976). This guided social interaction allows student teachers to progressively bridge the gap between their baseline academic knowledge and independent professional execution. By observing structured instructional modeling within the college environment, trainees internalize professional habits and reproduce them during school practice, resulting in high levels of acquired pedagogical competence (Darling-Hammond et al., 2022; Mtika et al., 2022).

The high level of student teachers' learning outcomes is further explained by Bandura's (1977) Social Learning Theory. Bandura posits that complex human behaviors are acquired through observational modeling, cognitive retention, and behavioral reproduction. Throughout their college enrollment, student teachers continuously observe the professional habits, punctuality, communication styles, and lesson structuring demonstrated by their tutors. In accordance with Bandura's modeling sub-processes, trainees encode these observed behaviors and reproduce them during micro-teaching sessions and field practice in primary schools. Successful execution during teaching practice yields positive vicarious and direct reinforcement, significantly enhancing student teachers' instructional self-efficacy (Bandura, 1997; Lunenberg et al., 2007). This heightened self-efficacy translates into high affective outcomes, characterized by strong professional discipline, adherence to code of conduct, punctuality, and commitment to pupil learning (Swennen et al., 2008).

Despite the high overall composite mean, a critical qualitative examination of specific learning outcome sub-domains reveals important variations that correspond with broader international literature. While student teachers achieve near-maximum scores in theoretical subject knowledge, administrative planning, and professional ethics, their performance drops to moderate levels in practical classroom execution, live formative assessment, and inclusive pedagogy (Barza et al., 2023; Croft & Ndlovu, 2022). When placed in crowded primary school classrooms during field practice, prospective teachers frequently default to traditional, teacher-centered lecturing, struggle with higher-order questioning, and struggle to manage instructional time effectively (Kafyulilo et al., 2022; Vavrus & Bartlett, 2022). Furthermore, student teachers display limited competence in differentiated instruction, rarely adapting lesson delivery to support slow learners or pupils with special educational needs (Florian, 2021; Miles & Singal, 2022). Similarly, formative assessment routines remain largely mechanical, focusing on marking exercise books with simple ticks rather than providing qualitative diagnostic feedback (Asare & Nti, 2022; Carless & Winstone, 2023).

The high achievement level in student learning outcomes is particularly notable given the challenging socio-economic and educational context of Northern Uganda. Primary Teachers' Colleges in this region operate under significant resource constraints, including large cohort sizes, limited digital infrastructure, scarce physical library materials, and overcrowded primary demonstration schools (Altinyelken & Hoeksma, 2021; World Bank, 2023). That student teachers achieve high outcomes amidst these structural bottlenecks underscores their individual resilience, peer collaboration, and strong institutional commitment from college faculty. As Schweisfurth (2023) and Akyeampong et al. (2023) observed in similar developing educational systems, structured teacher preparation programs can achieve high baseline competency outcomes even in

low-resource environments when administrative monitoring and professional discipline remain consistent.

In conclusion, the finding that the level of student teachers' learning outcomes in Core Primary Teachers' Colleges in Northern Uganda is high validates the fundamental structure and curriculum delivery of initial teacher education in the region. Student teachers effectively draw upon tutor-led scaffolding (Vygotsky, 1978) and observational modeling (Bandura, 1977) to develop strong cognitive, administrative, and affective competencies. However, to translate these high baseline outcomes into true instructional excellence in primary schools, policy interventions must address the practical execution gaps. Educational policymakers and college administrators must prioritize expanding hands-on micro-teaching practice, integrating educational technology, and equipping student teachers with practical skills in active learner facilitation, diagnostic assessment, and inclusive classroom management (Darling-Hammond et al., 2022; UNESCO, 2023)

The empirical finding that tutors maintain a high overall level of instructional approaches is particularly significant given the challenging socio-economic and structural context of Northern Uganda. Primary Teachers' Colleges in post-conflict and historically underserved regions often face severe resource constraints, including high student-to-tutor ratios that frequently exceed sixty trainees per lecture cohort, limited digital hardware, erratic power supply, and scarce physical teaching aids (Altinyelken & Hoeksma, 2021; World Bank, 2023). Despite these infrastructural limitations, the high rating achieved by tutors demonstrates remarkable professional resilience and institutional dedication. Tutors adapt to large class sizes and resource scarcity by utilizing improvised instructional materials, leveraging traditional chalkboard pedagogy effectively, and maintaining rigorous classroom management routines. This contextual adaptation aligns with

regional research which notes that teacher educators in developing regions frequently overcome material deficits through strong pedagogical discipline, dedication to syllabus coverage, and resourceful instructional management (Akyeampong et al., 2023; Schweisfurth, 2023).

While the overall composite score for tutors' instructional approaches was high, a critical qualitative examination of individual instructional constructs reveals important internal variations that align with broader empirical literature. The high overall mean was primarily driven by exceptionally high scores in instructional planning and content organization, subject matter mastery, and professional ethics. Tutors score near maximum levels when evaluated on administrative readiness, curriculum alignment, and lesson structuring (Hardman et al., 2023). Conversely, sub-dimensions such as active and constructive student facilitation, educational technology integration (TPACK), and differentiated or inclusive pedagogy scored at moderate levels within the broader high category (Celik, 2023; Florian, 2021). As educational scholars frequently point out, large cohort sizes and heavy exam-oriented syllabi frequently force even highly competent tutors to rely on teacher-led lecturing rather than small-group active facilitation or individual differentiation (Barza et al., 2023; Tabulawa & Kgosidialwa, 2023). This nuance indicates that while tutors are highly prepared and theoretically sound, the practical, interactive, and adaptive elements of their instruction are still constrained by systemic pressures.

In conclusion, the finding that the level of tutors' instructional approaches in Core Primary Teachers' Colleges in Northern Uganda is high highlights a strong professional foundation in teacher preparation. Tutors perform effectively as constructivist guides (Vygotsky, 1978) and behavioral role models (Bandura, 1977), providing the necessary structural scaffolding and instructional templates required by prospective teachers. To sustain and elevate this high

instructional standard, policy interventions must focus on addressing the qualitative gaps hidden within the high overall scores. Interventions should target reducing class cohort sizes, equipping colleges with reliable digital infrastructure, and providing tutors with continuous professional development tailored specifically to active, technology-driven, and differentiated pedagogical strategies (Darling-Hammond et al., 2022; UNESCO, 2023). By addressing these systemic constraints, teacher training institutions can ensure that high administrative compliance translates fully into highly adaptive, student-centered instructional excellence

## 5.4 Objective III: To establish the relationship between Tutors Instructional approaches and Students learning Outcomes in Teacher training institutes in Northern Uganda

The empirical findings of this study revealed a statistically significant, strong positive relationship between tutors' instructional approaches and student teachers' learning outcomes in Core Primary Teachers' Colleges across Northern Uganda ($p < .05$). This strong positive correlation indicates that as college tutors enhance the quality, structure, interactive nature, and resourcefulness of their daily instructional methods, there is a corresponding, substantial rise in the cognitive, administrative, practical, and affective learning outcomes achieved by prospective teachers. This statistical link confirms that the pedagogical strategies deployed by teacher educators serve as the primary determinant of pre-service teacher competence, emphasizing that student learning in initial teacher education is a direct function of instructional quality rather than an isolated, independent student process.

This strong empirical relationship is deeply grounded in Bandura’s (1977) Social Learning Theory, which asserts that complex professional behaviors are acquired through observational modeling, cognitive retention, and behavioral reproduction. In teacher training institutes, prospective teachers

do not merely absorb theoretical content; they continuously observe, evaluate, and internalize the actual teaching practices demonstrated by their tutors (Lunenberg et al., 2007; Swennen et al., 2008). When tutors utilize high-level instructional approaches demonstrating structured lesson execution, active learner engagement, clear communication, and systematic chalkboard organization student teachers encode these practices as normative professional standards. In accordance with Bandura's modeling sub-processes, trainees store these mental templates and physically reproduce them during micro-teaching sessions and field practice in primary schools. Successful reproduction elevates student teachers' instructional self-efficacy (Bandura, 1997), enabling them to manage primary school classrooms effectively, structure daily lessons, and execute core curriculum requirements with professional confidence (Avalos, 2021; Kunter et al., 2021).

From the perspective of Vygotsky's (1978) Social Constructivist Theory, the strong positive relationship highlights the fundamental role of the tutor as a More Knowledgeable Other (MKO) who mediates professional development within the learner's Zone of Proximal Development (ZPD). Student teachers enter college with baseline subject knowledge but lack operational teaching competence. The tutor's instructional approaches encompassing detailed instructional planning, structured lecture delivery, and continuous formative feedback provide the essential cognitive scaffolding (Wood et al., 1976) required for trainees to navigate this developmental gap. When tutors construct clear schemes of work, break down pedagogical theories into manageable steps, and offer specific diagnostic feedback on micro-teaching performances, they lower cognitive load and clarify complex teaching skills (Darling-Hammond et al., 2022). As student teachers internalize these scaffolded practices, tutors gradually reduce direct guidance, allowing trainees to

achieve full instructional autonomy during independent primary school field placements (Mtika et al., 2022).

The strong positive relationship observed in Northern Uganda mirrors extensive empirical literature across Sub-Saharan Africa and international teacher education research (Baumert et al., 2021; Hardman et al., 2023). Studies evaluating initial teacher preparation repeatedly confirm that teacher educators' daily instructional modeling directly shapes trainee classroom execution (Ssentamu et al., 2023). For example, when tutors model interactive, student-centered strategies, student teachers demonstrate significantly higher adoption of active learning methods during school practice (Kafyulilo et al., 2022). Conversely, when tutors rely heavily on passive, transmission-style lecturing, trainees mirror this behavior by defaulting to traditional "chalk-and-talk" delivery in primary school classrooms (Altinyelken, 2010; O'Sullivan & Thomas, 2023). This alignment underscores that student teachers rarely exceed the pedagogical standards modeled by their instructors, making tutor instructional approaches the critical bottleneck or accelerator for pre-service learning outcomes.

A granular examination of the relationship across specific sub-domains further validates the interdependence of these constructs. The high performance of student teachers in administrative planning (schemes of work and lesson design) correlates directly with tutors' exceptionally high scores in instructional organization and syllabus alignment (Hardman et al., 2023; Sifuna & Kaime, 2022). Conversely, the relative weaknesses observed in student teachers' practical execution specifically regarding educational technology integration (TPACK) and differentiated/inclusive instruction correlate directly with the moderate to low execution of these same practices by college tutors (Celik, 2023; Florian, 2021). Because tutors infrequently

differentiate college lectures or integrate digital tools due to resource constraints in Northern Uganda (Altinyelken & Hoeksma, 2021; World Bank, 2023), student teachers lack live operational models to observe and replicate (Mwoma et al., 2023; Walton & Engelbrecht, 2023). This domain-specific mirror effect reinforces the finding that student learning outcomes directly mirror tutor instructional behavior across every pedagogical dimension.

In conclusion, the statistically significant, strong positive relationship between tutors' instructional approaches and student teachers' learning outcomes demonstrates that elevating teacher education in Northern Uganda requires direct investment in the professional capacity of college tutors. Because student teachers internalize and reproduce the exact pedagogical methods experienced during college lectures (Bandura, 1977; Vygotsky, 1978), institutional efforts to improve primary education must focus on transforming tutor delivery. Educational policymakers, Ministry officials, and college administrators must prioritize continuous professional development for tutors, focusing on active constructivist facilitation, educational technology, and inclusive teaching strategies (Darling-Hammond et al., 2022; UNESCO, 2023). By upgrading tutors' instructional approaches from traditional transmission methods to dynamic, technology-supported, and differentiated modeling, teacher training institutes can ensure that student teachers graduate with the advanced, student-centered competencies required for modern primary classrooms

## 5.4 Conclusion

i. Teachers' training institutes in Northern Uganda possess a strong foundational standard of administrative and structural instructional delivery. Tutors operate effectively as professional role models and constructivist guides who excel in syllabus alignment,

systematic lesson planning, subject content mastery, and institutional organization. However, their daily classroom practices remain largely traditional and teacher-dominated, with significant developmental gaps in active facilitation, educational technology integration, and differentiated instruction due to systemic resource constraints and large cohort sizes.

ii. Student teachers achieve high overall learning outcomes, particularly in cognitive knowledge, administrative planning, and professional ethics, but struggle with adaptive classroom execution. Prospective teachers successfully internalize formal schemes of work, detailed lesson planning, subject content, and professional conduct during college training. Nevertheless, when deployed to real primary school environments, trainees frequently struggle to execute live interactive facilitation, diagnostic formative feedback, and inclusive teaching strategies for diverse and special-needs learners.

iii. Tutors' instructional approaches are the primary determinant of student teachers' acquired professional competencies. A statistically significant, strong positive relationship exists between tutors' instructional methods and trainees' learning outcomes. Student teachers directly mirror, internalize, and reproduce the pedagogical behaviors modeled by their tutors during college lectures. Consequently, any qualitative gaps in tutor delivery such as limited technology use or lack of differentiated instruction reproduce as direct performance deficits in prospective teachers during field placements.

## 5.5 Recommendations

i. The Ministry of Education and Sports (MoES) and National Curriculum Bodies should modernize the PTC curriculum and invest in modern institutional infrastructure. Policy implementation should prioritize reducing the student-to-tutor ratio in lecture halls and

equipping Core PTCs in Northern Uganda with reliable solar power systems, high-speed internet connectivity, and functional ICT laboratories. Furthermore, curriculum policy must rebalance initial teacher education by shifting assessment weights away from traditional, exam-heavy theoretical recall toward continuous practical demonstrations, active facilitation, and practical technology integration.

ii. Primary Teachers' College Principals and Administration should implement continuous, internal professional development programs focused on adaptive pedagogy. College leadership should establish structured, peer-led faculty workshops and clinical supervision programs for tutors. These internal initiatives should explicitly train tutors on modeling Universal Design for Learning (UDL) principles, differentiated instructional strategies for large cohorts, and continuous diagnostic feedback techniques, ensuring that tutors move beyond traditional "chalk-and-talk" lecturing and model inclusive practices daily.

iii. College Tutors should intentionally model interactive, technology-supported, and differentiated teaching strategies in daily lectures. Tutors must recognize that student teachers directly internalize and replicate their classroom behaviors during field practice. Tutors should systematically embed micro-teaching exercises, peer-group problem-solving, local instructional media production, and varied teaching paces into their routine lectures. By actively modeling these learner-centered methods within the college environment, tutors will provide the necessary observational templates and practical scaffolding required for prospective teachers to succeed in modern primary school classrooms

## 5.6 Further Studies

A Longitudinal Evaluation of the Transfer of Student Teachers' Learning Outcomes into Long-Term Primary School Classroom Practices. Future research should track cohort graduates from Core Primary Teachers' Colleges into their first 3 to 5 years of full-time teaching in primary schools. While the present study evaluated student teachers' outcomes during initial training and short-term field practice, a longitudinal study would determine whether the pedagogical behaviors modeled by college tutors (such as active facilitation, technology integration, and inclusive strategies) are sustained over time or eroded by real-world primary school structural challenges, such as extreme class sizes and limited teaching resources.

A Comparative Mixed-Methods Study on the Impact of Digital Scaffolding Tools Versus Traditional Tutor Modeling in Resource-Constrained Teacher Colleges. Given that educational technology integration (TPACK) and differentiated instruction scored lowest among both tutors and student teachers, future studies should investigate experimental or quasi-experimental interventions. Research could compare student teacher learning outcomes in colleges using offline, low-bandwidth digital scaffolding tools (such as pre-loaded instructional tablets and digital video modeling) against traditional lecture-based tutor modeling in rural or post-conflict primary teacher training institutes

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# Appendices

## Appendix I: Informed consent document

Title of the study: Tutors instructional approaches and students' outcomes in teachers training institutes in Northern Uganda

Investigator(s): Ms. Ochola Esther Lucy

Institution(s): Gulu University

Introduction

I am a Researcher from Gulu University. I intend to to investigate the influence of teacher practice on students' outcomes in Primary teacher colleges in Lango-sub region

A brief description of the sponsors of the research project

This study is self-sponsored.

Purpose:

Ideally, students' outcome constitutes the desired learning objectives, knowledge, skills and abilities individual students should possess or standards that schools and teachers want students to achieve. It is the educational, societal and life effects that result from students being educated. However, due to different teacher practices not being innovative, there has been high rate of failure and disappropriate students' outcomes in different regions in the country, especially in Lango sub region. Efforts by government to equip schools with basic scholastic materials to improve students' outcomes have been futile. The failure rate has continued to rise in the region, triggering concern and need to investigate the role of teacher practice in the poor students' outcome in Lango sub region.

Procedures:

Your participation in this study will be to allow us to ask you a few questions, from where your response to a few questions will be recorded for study purpose.

Who will participate in the study?

You have been chosen to participate in this study because you are either a teacher or a student, from a primary teacher college in Lango sub region

Risks/discomforts:

There is no foreseeable risk of harm or discomfort that will arise from your participation in this study. The only risk or discomfort will be the inconvenience in terms of time spent during the interview.

Benefits:

You will not directly benefit from this study, but the findings of the study will help in knowing how to improve the students' outcome by applying appropriate teacher practices.

Lastly, as a participant, you will get feedback on findings and progress of the study, and any new information that affects you will be made available to you.

Confidentiality:

Your identity will not be revealed to any one as we shall only use codes to identify participants. Information obtained will only be accessible by the research team. Soft copies of the data will be protected by password and hard copy files will be kept under lock and key. Confidential information will only be accessed by the principal investigator.

Alternatives:

You do not have to participate in this study if you are not interested. You will not lose any benefit in case of no participation.

Cost:

There will not be any additional cost incurred as a result of participating in this study.

Questions:

If you have any questions related to the study, or your rights as a research participant, you can contact the principal investigator, Ms. Ochola Esther Lucy on telephone number +256783192293 or via email on estherochola173@gmail.com

Statement of voluntariness:

Participation in the research study is voluntary and you may join on your own free will. You have a right to withdraw from the study at any time without penalty.

If you have any issues pertaining to your rights and participation in the study, please contact the Chairperson Research ethical committee on the contacts below;

Statement of consent

The researcher has described to me what is going to be done, the risks, the benefits involved and my rights as a participant in this study. I understand that my decision to participate in this study will not affect me in any way. In the use of this information, my identity will be concealed. I am aware that I may withdraw at any time. I understand that by signing this form, I do not waive any of my legal rights but merely indicate that I have been informed about the research study in which I am voluntarily agreeing to participate. A copy of this form will be provided to me.

Name ……Signature of participant……Date ……...

Name…….Signature of interviewer……Date……..

## Appendix ii: Research questionnaire

Tutors instructional approaches and Students Outcomes in Teacher training institutions in Northern Uganda.

Dear respondent,

I am Ochola Esther Lucy, a student of Gulu University carrying out a research for the award of Master Degree of Education in Education Management, Planning and Administration. Given the fact that you are a student of a Primary Teacher College, it has been assumed that you have expert knowledge on the aforementioned subject. As such, you are humbly requested to answer the questions below. Your name will not appear in the final results and all results will be presented in block. The information you present is strictly for academic purposes only. Kindly spare a few minutes and answer the questions below.

On request, you may be availed with a copy of the report.

Thanks.

Study number……..

Date of interview…….

SECTION A: Demographics and personal data

A1. Age.....

A2. Religion ……..

A3. Tribe.....

A4. Year of Study ……

SECTION B: Supportive climate

| | Item | YES | NO |
|---|---|---|---|
| B1 | Our teachers clearly communicate about violence. | | |
| B2 | There is consistent enforcement and norms for intervention when faced with violence. | | |
| B3 | My teacher threatens me during his/her lessons. | | |
| B4 | My teachers give me constructive feedback during lesson. | | |
| B5 | My teachers give me ample time to independently do tasks assigned to me. | | |
| B6 | My teachers are available to encourage me when tasks/assignments become hard. | | |
| B7 | Most students here are social and so it is easy to resolve conflicts. | | |
| B8 | I always feel free to dialog and question my students and teachers. | | |
| B9 | Most people in this college respect one another with respect to differences in gender, culture, level of disability and religion. | | |
| B10 | Teachers and administrator always communicate clear visions of the college. | | |
| B11 | I can freely identify with my college. | | |
| B12 | Teachers in my school actively work to create a safe and welcoming environment for every student. | | |

SECTION C: Classroom management

| | Item | YES | NO |
|---|---|---|---|
| C1 | Teachers demonstrate behavior they want to see in my class. | | |

| | | | |
|---|---|---|---|
| C2 | Our teachers encourage all students to help build classroom expectations and rules. | | |
| C3 | Teachers print and distribute the list of rules that the class discussion generated. | | |
| C4 | Teachers address isolated discipline problems individually and do not punish the entire class. | | |
| C5 | My teachers give me ample time to independently do tasks assigned to me. | | |
| C6 | My teachers are available to encourage me when tasks/assignments become hard. | | |
| C7 | Most students here are social and so it is easy to resolve conflicts. | | |
| C8 | I always feel free to dialog and question my students and teachers. | | |
| C9 | Most people in this college respect one another with respect to differences in gender, culture, level of disability and religion. | | |
| C10 | Teachers and administrator always communicate clear visions of the college. | | |
| C11 | I can freely identify with my college | | |

SECTION D: Cognitive activation

| | Item | YES | NO |
|---|---|---|---|
| D1 | The teacher introduces challenging or fascinating problems/tasks at the beginning of the lesson. | | |
| D2 | The teacher offers the students time and opportunities to ask their own questions. | | |
| D3 | The questions asked by the teacher require more than just yes/no answers and do not just ask for memorized knowledge. | | |
| D4 | The questions teachers ask cannot be answered spontaneously and make the learners think. | | |

| | | | |
|---|---|---|---|
| D5 | The teacher asks for the assumptions or encourages the kids to express their suspicion | | |
| D6 | The teacher tries to understand the thinking of the learners by asking how they came up with specific answers and/or by asking to justify their answers. | | |
| D7 | The teacher confronts the learner with facts, observations or phenomena that contradict learners' expectations and/or alert learners to inconsistencies. | | |
| D8 | The teacher encourages the exchange among the learners by asking them to relate their contributions to each other and/or to discuss their own assumptions/explanations. | | |
| D9 | Most people in this college respect one another with respect to differences in gender, culture, level of disability and religion. | | |
| C10 | The teacher picks up mistakes of the learners and uses them in the further course of the lesson. | | |

Observation check list

| | Item | YES | NO |
|---|---|---|---|
| E1 | The student is compassionate to others during lesson | | |
| E2 | The student demonstrates authenticity during learning. | | |
| E3 | The student is curious during learning. | | |
| E4 | The student shows empathy during learning. | | |
| E5 | The student is loving to his/her environment | | |
| E6 | The student exercise openness while approaching other students and teachers. | | |
| E7 | The student is approachable. | | |

Thanks for your time.

Tutors instructional approaches and Students Outcomes in Primary Teacher training institutions Northern Uganda.

Dear respondent,

I am Ochola Esther Lucy, a student of Gulu University carrying out a research for the award of Master Degree of Education in Education Management, Planning and Administration. Given the fact that you are a Teaching staff of a Primary Teacher College, it has been assumed that you have expert knowledge on the aforementioned subject. As such, you are humbly requested to answer the question in sections A and B only and section C will be used during one of your lessons in class. Your name will not appear in the final results and all results will be presented in block. The information you present is strictly for academic purposes only. Kindly spare a few minutes and answer the questions below.

On request, you may be availed with a copy of the report.

Thanks.

Study number……..

Date of interview…….

SECTION A: Demographics and personal data

A1. Age.....

A2. Religion ……..

A3. Tribe.....

A4. Year of Study ……

SECTION B: Supportive climate

| | Item | YES | NO |
|---|---|---|---|
| B1 | I clearly communicate about violence. | | |
| B2 | Our college has consistent enforcement and norms for intervention when students are faced with violence. | | |
| B3 | I occasionally feel that some students feel threatened during my lessons. | | |
| B4 | I ensure I give constructive feedback during lesson to my students. | | |
| B5 | My students always beat deadline time to independently do tasks assigned to me. | | |
| B6 | I experience so many students when tasks/assignments become hard. | | |
| B7 | Most students here are social and so it is easy to resolve conflicts. | | |
| B8 | I always feel free to dialog and question my students and fellow teachers. | | |
| B9 | Most people in this college respect one another with respect to differences in gender, culture, level of disability and religion. | | |
| B10 | The college administration always communicates clear visions of the college. | | |
| B11 | I can freely identify with my fellow teachers and students. | | |
| B12 | Teachers in my school actively work to create a safe and welcoming environment for every student. | | |

SECTION C: Classroom management

| | Item | YES | NO |
|---|---|---|---|
| C1 | I demonstrate every behavior I want to see in my class. | | |
| C2 | I often encourage all students to help build classroom expectations and rules. | | |

| | | | |
|---|---|---|---|
| C3 | I print and distribute the list of rules that the class discussion generated. | | |
| C4 | I address isolated discipline problems individually and do not punish the entire class. | | |
| C5 | I give me ample time to independently do tasks assigned to me. | | |
| C6 | I am available to encourage students when tasks/assignments become hard. | | |
| C7 | Most students are social and so it is easy to resolve conflicts while in class. | | |
| C8 | I always feel free to dialog and question my students while in class. | | |
| C9 | Most people in my class respect one another with respect to differences in gender, culture, level of disability and religion. | | |
| C10 | Teachers and administrator always communicate clear visions of the college. | | |

OBSERVATION CHECKLIST

*NB: This section is a check list for classroom observation during a 40 minute lesson.*

SECTION D: Cognitive activation

| | Item | YES | NO |
|---|---|---|---|
| D1 | The teacher introduces challenging or fascinating problems/tasks at the beginning of the lesson. | | |
| D2 | The teacher offers the students time and opportunities to ask their own questions. | | |
| D3 | The questions asked by the teacher require more than just yes/no answers and do not just ask for memorized knowledge. | | |
| D4 | The questions teachers ask cannot be answered spontaneously and make the learners think. | | |
| D5 | The teacher asks for the assumptions or encourages the kids to express their suspicion | | |

| | | | |
|---|---|---|---|
| D6 | The teacher tries to understand the thinking of the learners by asking how they came up with specific answers and/or by asking to justify their answers. | | |
| D7 | The teacher confronts the learner with facts, observations or phenomena that contradict learners' expectations and/or alert learners to inconsistencies. | | |
| D8 | The teacher encourages the exchange among the learners by asking them to relate their contributions to each other and/or to discuss their own assumptions/explanations. | | |
| D9 | Most people in this college respect one another with respect to differences in gender, culture, level of disability and religion. | | |
| C10 | The teacher picks up mistakes of the learners and uses them in the further course of the lesson. | | |

Thanks for your time.