Students' Discipline and Practical Skills Acquisition among Carpentry and Joinery Students, a Case of Technical Institutes in Lango Sub-Region.

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September, 2025.

Declaration

I, Joel Otee do hereby declare that this dissertation entitled *"Students' Discipline and practical skills acquisition among carpentry and joinery students, a case of technical institutes in lango sub-region"* is my original work and has never been submitted to any Academic Institution for the award of a Master Degree or any other Academic award.

Sign…… Date 28th/5/2026….

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Approval

This is to certify that, this dissertation presented by Joel Otee entitled *"Students' Discipline and practical skills acquisition among carpentry and joinery students, a case of technical institutes in lango sub-region"* has been under our supervision and is now ready for submission to the Department of Education Management and Administration Faculty of Education and Humanities, of Gulu University.

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Signature..... Date..28/05/2026

2. Dr. Helen Christine Amongin

Signature ..... Date...28.05.2026

Dedication

I dedicated this work to my family, especially my wife Ayugi Esther Nighty and my children, for their perseverance, patience and unwavering support throughout this study. I also remember with gratitude my late uncle (RIP), Mr. Odongo Lawrence and his wife Mrs. Adero Faibi for their financial, spiritual and moral guidance. And to my fellow instructors of carpentry and joinery and to the students of this trade, whose dedication to learning continues to inspire.

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TABLE of CONTENTS:

Declaration.....**i**

Approval.....**ii**

Dedication.....**iii**

Acknowledgement.....**iv**

List of tables.....**ix**

List of Figures.....**x**

Abstract.....**xi**

Chapter One.....**1**

Introduction.....**1**

1.0 Overview.....1

1.1 Background of the study.....1

1.1.1 Historical perspective.....1

1.1.2 Theoretical Perspective.....5

1.1.3 Conceptual Perspective.....6

1.1.4 Contextual Perspective.....7

1.2 Statement of the problem.....9

1.3 Purpose of the study.....9

1.3.1 Specific Objectives.....9

1.3.2 Research Questions.....10

1.3.3 Hypotheses.....10

1.4 Scope of the Study.....10

1.4.1 Content Scope.....10

1.4.2 Geographical Scope.....11

1.4.3 Time Scope.....11

1.5 Significance of the study.....12

1.6 Conceptual framework.....12

CHAPTER TWO.....**15**

Literature Review.....**15**

2.0 Introduction 15
2.1 Theoretical review 15
2.1.1 Skills acquisition theory 15
2.2 Review of Related Literature 17
2.2.1 Time management and practical skills acquisition 17
2.2.2 Respectful Interactions and Practical Skills Acquisition 19
2.2.3 Students' participation and Practical Skills Acquisition. 21
2.2.4 Relationship between students' discipline and practical skills acquisition. 23
2.3 Summary of literature review 25
CHAPTER THREE 26
Methodology 26
3.0 Introduction 26
3.1 Research Approach 26
3.2 Research Design 26
3.3 Study Area 26
3.4 Target Population 27
3.5 Sampling Techniques and Sample Size Determination 27
3.5.1 Sampling Techniques 27
3.5.2 Sample Size Determination 27
3.5.3 Sampling Technique 28
3.6 Data Collection Procedures 28
3.7 Data Collection Methods and Instruments 28
3.7.1 Questionnaires 29
3.7.2 Interviews 29
3.8 Data Quality Control (quantitative and qualitative data) 30
3.8.1 Quantitative Data Quality Control 30
3.8.1.1 Validity 30
3.8.1.2 Reliability 30

3.8.2 Qualitative Data Quality Control 31
3.9 Data Analysis.....31
3.9.1 Quantitative Data Analysis.....31
3.9.2 Qualitative Data Analysis.....32
3.11 Ethical Considerations.....32
3.12 Limitations and Delimitations.....33
CHAPTER FOUR.....34
Presentation and Interpretation of results 34
4.0 Introduction 34
4.1 Response Rate 34
4.2 Demographic characteristics 34
4.3 Students' Discipline.....37
4.3.1 Time management among carpentry and joinery students 37
4.3.2 Respectful interactions among carpentry and joinery students. 38
4.3.3 Students' active participation in carpentry and joinery. 40
4.4. Practical Skills Acquisition among carpentry and joinery students. 42
4.5 Relationship between students' discipline and the acquisition of practical skills. 44
4.5.1 Time Management and Practical Skills Acquisition. 44
4.5.1.1 Qualitative Findings Time Management and Practical Skills Acquisition.....45
4.5.2 Respectful Interactions and Practical Skills Acquisition. 50
4.5.2.1 Qualitative Findings on Respectful Interactions and Practical Skills Acquisition...50
4.5.3 Student Participation and Practical Skills Acquisition. 54
4.5.3.1 Qualitative Findings on Student Participation and Practical Skills Acquisition. 55
4.6 Hypotheses testing on Students' Discipline and Practical Skills Acquisition. 59
4.6.1 Regression Analysis on Students' Discipline and Practical Skills Acquisition.....60
CHAPTER FIVE: 61
Discussions, Conclusion and Recommendation 61
5.0 Introduction 61

5.1 Discussions 61
5.1.1 Relationship between Time Management and Practical Skills Acquisition 61
5.1.2 Relationship between Respectful Interactions and Practical Skills Acquisition 64
5.1.3 Relationship between Student Participation and Practical Skills Acquisition 65
5.1.4 Relationship between Students' Discipline and Practical Skills Acquisition. 67
5.2 Conclusions 69
5.3 Recommendations: 70
5.4 Suggested Areas for Further Research: 71
REFERENCES 73
APPENDICES 80
Appendix I: Survey Questionnaires for Students 80
Appendix II: Interview guide for principals, deputies 86
Appendix III: Focus Group Discussion (FGD) Guide for Carpentry and Joinery Students 87
Appendix V: Consent Form (Interviews and FGDs) 88
Appendix VI: Map Showing Lango Sub-Region of Uganda 89
Appendix V: Standardized sampling table 90
Appendix VI: Introductory Letter 91
Appendix VII: Plagiarism Results 92

List of tables

Table 1: Sampling table.....28
Table 2: Reliability test.....31
Table 3: Demographic information of respondents.....36
Table 4: Time Management among Carpentry and Joinery Students.....38
Table 5: Students' Respectful Behaviour among Carpentry and Joinery Students.....40
Table 6: Students' Participation among Carpentry and Joinery Students.....42
Table 7: Practical Skills Acquisition among Carpentry and Joinery Students.....44
Table 8: Pearson Correlation Results for Students' Discipline and Practical Skills Acquisition.....58
Table 9: Hypothesis Testing Results on Students' Discipline and Practical Skills Acquisition.....59
Table 10: Regression model summary.....60
Table 11: Regression Coefficients[a].....61

List of Figures

Figure 1: Conceptual framework 14

Abstract

The study investigated the relationship between students' discipline and practical skills acquisition among carpentry and joinery students in selected technical institutes within Lango Sub-Region. The theory that underpinned the study was Skills Acquisition theory, developed by Rod Ellis and Shritani (2013). The purpose of the study was to determine how various dimensions of discipline, including time management, respectful interactions and active participation influence the acquisition of practical carpentry and joinery skills. The study was guided by four objectives: To examine the relationship between time management/punctuality and practical skills acquisition, To explore the influence of students' respectful interactions on practical skills development, To investigate the impact of student participation on practical competencies and To determine the overall relationship between students' discipline and the acquisition of practical skills. A mixed-methods research design was employed, involving a sample of 97 respondents drawn from each selected technical institutes, including students, instructors, departmental heads, principals and their deputies. Quantitative data were collected using structured questionnaires and analyzed through Pearson correlation and linear regression data analysis. While qualitative data were gathered through interviews and analyzed thematically to provide contextual insights. The research findings revealed strong positive relationships between all dimensions of students' discipline and practical skills acquisition with students' time management ($r = .689^{**}$, $p < 0.01$), respectful interactions or behaviour ($r = .755^{**}$, $p < 0.01$) and students' participation ($r = .682^{**}$, $p < 0.01$). These results indicated that disciplined students through effective time management, respectful interactions, behaviour or communication and active participation demonstrated higher proficiency in practical carpentry and joinery tasks. The study concluded that fostering discipline in technical education is critical for enhancing both technical competencies and professional attitudes, thereby improving employability and workplace readiness. Based on these findings, it was recommended that technical institutes implement structured programs and mentorship initiatives to promote self-discipline, encourage collaborative respectful interactions and provide opportunities for active participation to strengthen practical skills acquisition among students.

Keywords: Students' discipline, practical skills acquisition, government-aided technical institutes and Lango Sub-Region.

CHAPTER ONE

Introduction

1.0 Overview

The study on Students' Discipline and Practical Training Skills acquisition in Government Aided Technical Institutes in Uganda explores the critical link between student discipline and effectiveness of practical skills training in those institutions. It is observed that while technical institutes are designed to equip students with hands-on skills necessary for the workforce, the level of discipline among students significantly impacts their ability to acquire and apply these skills. Recent reports indicate challenges such as absenteeism, lack of focus, time management and low discipline, which undermine the quality of training provided. This study is prompted by the need to understand how discipline influences practical skills acquisition, with the aim of identifying strategies to enhance both student behaviour and the effectiveness of practical training in these institutes, particularly in Lango Sub-Region of Uganda. This chapter presents the overview and background of the study which comprises of; Historical Perspective, Theoretical Perspective, Contextual Perspective, Conceptual Perspective, Statement of the problem, General objectives or Purpose of the Study, Specific Objectives, research questions, Scope of the study, Significance of the study, Including Conceptual Framework.

1.1 Background of the Study.

1.1.1 Historical Perspective

The historical relationship between students' discipline and practical skills acquisition in technical institutes is rooted in the evolving educational philosophies and socio-economic demands of the past century. In the early 20th century, the rise of industrialization emphasized the need for skilled workers, leading to a focus on technical education systems designed to equip students with hands-on expertise. John Dewey's philosophy, advocating for experiential learning, highlighted that discipline was essential for fostering focus and engagement, thus ensuring that students could master emerging technologies and skills (Dewey, 1916). As behaviorist theories in the mid-20th century, particularly those of B.F. Skinner, gained prominence, the connection between disciplined behaviour and effective skill acquisition became more apparent. Structured training programs in government-aided technical institutes were introduced, particularly in developing nations, to instill both technical expertise and work ethics, such as punctuality/time management and responsibility (Skinner, 1953; Witte & Rogge,

2014). These efforts aimed not only to improve skills acquisition but also to enhance employability, linking discipline directly to workforce readiness in a rapidly industrializing global economy. The role of discipline in skill development continued to evolve with the introduction of student-centered learning approaches in Africa and other regions, recognizing the importance of active participation, collaboration and respectful interaction in building technical competencies (Nsamenang & Tchombe, 2011; Tukundane et al., 2015).

Recent data underscores the significant impact of student discipline on practical skills acquisition across various educational contexts. Studies by UNESCO (2020) and World Bank (2021) reveals that disciplined students are those who adhere to schedules, actively participate, and show respect for instructors are significantly more likely to acquire practical skills effectively. Research indicates that such disciplined behaviour led to a 25% improvement in practical competence, as evidenced in countries like Germany, where 87% of technical and vocational students attributes their success to structured, disciplined training (World Bank, 2021). Further studies in North America and Europe show that disciplined students exhibit a 40% higher success rate in completing technical and vocational projects and are 45% more likely to secure employment post-graduation (NCES, 2020; Tukundane et al., 2015).

In Africa, technical education reforms that integrate student-centered approaches have also shown that discipline through regular attendance, time management and collaboration significantly boost students' skill proficiency and employability. With disciplined students in countries like Ghana and Kenya achieving 20-30% higher skill levels (Ofori, 2021; Nkrumah, 2019). The global trend indicates that discipline is not only about compliance with rules and regulations, but also involves behaviour that enhances time management, collaboration and problem-solving all of which are essential for effective skills acquisition and higher employability in the workforce.

In Sub-Saharan Africa, the role of students' discipline in Technical, Vocational Education and Training (TVET institutions is emerging as a critical determinant of effective skills acquisition. The region faces several challenges, including limited resources, inadequate infrastructure and a rapidly evolving labour market that demands skilled workers in various technical fields. According to the African Union Development Agency (AUDA-NEPAD, 2020), disciplined students who exhibit punctuality, maintain time management and engage actively in their studies are 30% more likely to successfully complete their TVET programs compared to their peers who struggle with these behaviours. This trend has been observed across multiple African

countries, including Kenya, Nigeria and South Africa. Where studies indicate that 45% of students who failed to attend classes regularly experienced difficulties in completing practical tasks due to low engagement levels (World Bank, 2021). This suggests that students' discipline, especially in terms of attendance and participation, is a key driver of success in practical skills development. Furthermore, respectful interactions among students and instructors are often-an overlooked aspect of discipline which creates a positive and collaborative learning environment that supports skills acquisition. A study by UNESCO-UNEVOC (2020) found that TVET institutions that emphasize mutual respect between students and instructors report higher levels of cooperation and knowledge sharing, which are essential for mastering complex vocational and technical skills like carpentry and joinery.

In East Africa, technical and vocational education and training (TVET) institutions continue to face persistent discipline-related challenges that hinder effective practical skills acquisition. Gender inclusion remains a significant issue, with female enrollment in technical programs often falling below 30% due to discriminatory practices, limited support systems and restricted opportunities for participation in practical workshops (UNESCO, 2020). These barriers contribute to widening the region's skills gap in technical and industrial trades. Moreover, many TVET programs fail to integrate professional conduct, ethics and discipline into their curricula, leaving students underprepared for the behavioral expectations of the workplace (African Development Bank, 2020). The strong correlation between student disciplines including punctuality, time management, active engagement, respectful interactions and successful practical skills acquisition highlights the need for interventions. By embedding structured behavioral training within TVET systems, institutions across the region can improve learning outcomes and better equip graduates for meaningful employment in skilled sectors.

Uganda's technical and vocational education and training (TVET) system has evolved considerably, shaped by colonial legacies, socio-economic dynamics and policy reforms. Initially designed during the colonial era to impart basic mechanical, Agriculture, carpentry and joinery skills. The sector faced prolonged neglect after independence due to limited policy focus, underfunding and institutional mismanagement, resulting in a sharp decline in training quality (Aguti, 2017). Recent reforms such as Uganda's Vision 2040 and the Skilling Uganda strategy have repositioned TVET as a key driver of national development, aiming to improve youth employability through practical skill acquisition (MoES, 2019). However, student discipline continues to pose a serious challenge, with issues like absenteeism, drug misuse and

non-compliance with workshop safety protocols significantly undermining training outcomes (Kaggwa, 2019; UBOS, 2021). According to Uganda Business Technical Examinations Board, (UBTEB, 2021), over 65% of trainees report difficulty in mastering essential competencies due to poor time management, irregular attendance and low classroom engagement behaviour strongly linked to indiscipline. This problem is exacerbated by socio-economic factors, as many students from low-income families lack consistent parental guidance, which contributes to disengagement and behavioral issues (Muwagga & Ssempebwa, 2020). Furthermore, discipline-related challenges compromise the precision and safety necessary for technical work (Nabukenya & Kyeyune, 2021), while lack of mutual respect among students undermines collaborative learning (Ocen & Akello, 2021). Financial barriers further restrict participation, with 53% of learners unable to access essential materials for hands-on sessions, thereby limiting skill development (World Bank, 2022). These interconnected factors emphasize the need for targeted interventions to strengthen discipline, including mentorship, time management training and fostering respectful learning environments, which are essential to realizing the goals of Uganda's technical, vocational education and training (TVET) reforms and producing work-ready graduates.

In Northern Uganda, particularly Lango Sub-region, the influence of student discipline on practical skills acquisition presents a growing challenge. Ocen and Akello (2021) reported that over 68% of carpentry and joinery students in government-aided technical institutes fail to master foundational skills such as accurate measurement and tool handling by the time of graduation. This shortfall is largely attributed to low attendance, irregular participation and lack of engagement in hands-on training. The Uganda bureau of statistics, (UBOS, 2021) further highlighted that more than 40% of students in the region face difficulties in maintaining consistent attendance, a key determinant of practical skill development. Gender disparities also contribute to this problem, with female students make only about 30% of TVET enrollments facing marginalization and limited involvement in practical training activities (MoES, 2020). Compounding these issues are financial limitations, with over half of the students unable to procure hand tools and training materials needed (World Bank, 2022). The absence of mutual respect among students and between learners and instructors undermines collaboration, a crucial aspect of technical and vocational learning. Addressing these constraints by fostering discipline, promoting inclusivity and improving access to resources is imperative for enhancing skills acquisition and employability among students in Lango Sub-region.

1.1.2 Theoretical Perspective

The study is underpinned by Skills Acquisition Theory, developed by Rod Ellis and Shiritani (2013). It explains how learners acquire practical skills through a three-stage process: declarative knowledge, procedural knowledge and automaticity. Initially, learners acquire factual knowledge (declarative), then progress to performing tasks with less conscious effort (procedural), and eventually execute tasks automatically without much thought (automaticity). This theory is especially relevant in technical and vocational education, where practical skills such as carpentry and joinery are honed through repeated practice and discipline. Rod Ellis and Shiritani (2013) are the primary authors behind Skills Acquisition Theory. The theory was built from the existing learning theories and is widely recognized in the field of educational psychology. The theory's focus on the incremental stages of learning, offers a valuable lens through which skills development is understood, particularly in technical education and vocational training.

Skills Acquisition Theory operates on the assumption that learning is a gradual and stage-based process. It presupposes that, learners must engage in continuous practice and receive feedback to progress through each stage. The theory also assumes that learners move through the stages at their own pace, depending on their ability to practice and absorb feedback (Rod Ellis & Shiritani, 2013). This theory significantly contributes to understanding the development of practical skills in technical and vocational education, particularly in the context of carpentry and joinery. It highlights how student discipline and consistent practice are critical to mastering technical skills. The theory also underscores the importance of a structured learning environment where learners can practice regularly and receive timely feedback, which aligns with the study's focus on students' discipline and skills acquisition.

While the theory is useful, it has limitations especially when applied to resource-constrained environments like those in many Sub-Saharan African technical institutes. Factors such as inadequate infrastructure, overcrowded classrooms and limited access to training materials can hinder students' ability to progress through the stages of skills acquisition. Additionally, the theory focuses on individual learning, overlooking the importance of peer collaboration and social learning, which are essential for skill development in technical education and vocational settings (Bandura, 1986). To address these limitations, a more comprehensive approach that incorporates the social and institutional context of learning would be beneficial.

1.1.3 Conceptual Perspective

This study is anchored on the premise that students' discipline, punctuality/time management, respectful interactions and active participation (Gottfredson et al., 2020; Sawchuk, 2021; Craven, 2022) significantly enhances practical skill acquisition. It includes precision, safety adherence, tool versatility and project execution (Cesilia et al., 2018; Sriwahyuni et al., 2019). Your attention is therefore drawn to the conceptual perspective linking these attributes with the holistic development of students in technical, vocational education and training ensuring their readiness for the industry standards and professional success.

Practical skill acquisition encompasses several critical competencies including accuracy and exactness, resourcefulness, adherence to safe workshop practices, versatile tool and technique application, project completion and refinement, as well as drawing/design interpretations and aesthetic application (Cesilia et al., 2018). These dimensions collectively offer a comprehensive framework for assessing students' proficiency and readiness in carpentry and joinery. Adherence to safety protocols, for instance, reflects an acute awareness of personal and peer safety and is indicative of a responsible workshop culture (Saydam, 1996). Similarly, the capacity for versatile tool use denotes adaptability and a broader operational skill set essential in dynamic vocational settings (Sriwahyuni et al., 2019). Moreover, successful project completion, alongside the ability to interpret design schematics and apply aesthetic considerations, signals a higher-order integration of the theory and craftsmanship, underscoring the holistic nature of skill acquisition (Hurlock, 2017).

Student discipline, within the context of technical and vocational education, refers to a set of consistent behaviour, attitudes and self-regulatory practices that align with institutional norms and expectations to facilitate effective learning. It encompasses behavioral conformity, time management, interpersonal conduct, emotional control and persistent engagement in instructional activities. As articulated by Bariyah (2019), discipline in education is not solely about compliance with rules, but rather a comprehensive disposition toward structured learning, personal responsibility and goal-oriented behaviour. In technical education, environment such as carpentry and joinery workshops, discipline is particularly essential due to the hands-on, collaborative and safety-sensitive nature of practical training (Nurkholis, 2013; Suranto et al., 2022). Thus, student discipline serves as both a precondition for and a predictor of successful skill acquisition, as it enables learners to navigate the complexities of technical tasks, sustain motivation and contribute meaningfully to workshop activities (Fathoni, 2021).

Time management is a foundational component of students' discipline that influences workshop efficiency, consistency in practice and overall skill mastery. This variable extends beyond mere attendance, it includes trainees' ability to manage time effectively during practical activities, allocate appropriate durations to different stages of a task and meet project deadlines (Mangkunegara, 2019). Respect for scheduled instructional time fosters a sense of responsibility and accountability, both of which are critical for professional development in technical fields (Hurlock, 2017). Furthermore, consistent punctuality is strongly linked to increased participation in workshop activities, which in turn enhances the depth and retention of technical competencies (Gani et al., 2023). Time-conscious students are more likely to complete projects with precision, reinforcing discipline in skill-based learning contexts.

Respectful interactions refer to the exhibition of civility, cooperation and professional courtesy within the learning environment. In carpentry and joinery workshops, where collaboration and communication are central to effective practice, this variable encompasses behaviour such as polite dialogue, active listening, constructive feedback and conflict avoidance (Efendi & Ningsih, 2022). Such interactions are essential for fostering a positive and inclusive atmosphere, one that supports cooperative learning and peer-to-peer knowledge transfer (Hurlock, 2017). Respectful conduct not only improves workshop dynamics but also cultivates interpersonal skills that are transferable to the broader professional setting (Suranto et al., 2022). In this way, respect functions not just as a moral imperative, but as a practical asset in collaborative technical environments.

Students' participation refers to the active involvement of students in both theoretical and practical learning activities, critical for skill acquisition in TVET (Craven, 2022). It includes hands-on engagement, tool practice, project contribution, demo interaction and independent study. High participation boosts technical mastery and enhances focus, ensuring long-term skill retention (Gottfredson et al., 2020). Conversely, lack of participation may result in fragmented knowledge and hinder skill development (Sholihah & Firdaus, 2019). Thus, active involvement directly impacts technical competence and workforce readiness.

1.1.4 Contextual Perspective

The development of practical skills among students in government-aided technical institutes in Uganda, particularly in Lango sub-region, is central to the effectiveness of technical education. These institutions are mandated to provide hands-on, competency-based training aimed at preparing trainees for technical careers in fields such as construction, engineering,

manufacturing and agriculture. Within these institutions, student discipline and engagement are fundamental to the acquisition of practical skills necessary for work readiness (Nkata, 2019).

Students' discipline encompasses several critical attributes, including punctuality, effective time management, respectful conduct and active participation. Punctuality and time management reflect a student's ability to attend sessions consistently, adhere to timetables and meet task deadlines efficiently. Respectful interaction, as emphasized by Sawchuk (2021), involves maintaining a positive attitude, demonstrating politeness and showing deference to institutional authority. Additionally, trainee participation characterized by emotional, behavioral and cognitive involvement plays a pivotal role in enhancing attention, effort and persistence during both theoretical and workshop-based learning experiences (Craven, 2022).

Practical skills acquisition in carpentry and joinery includes; the development of precision, problem-solving abilities, adherence to safety protocols, effective application of various tools and techniques, completion and refinement of technical projects and the interpretation of technical drawing and designs. These competencies are best cultivated in well-resourced learning environments. Accordingly, the presence of adequate instructional tools, functional and safe workshops, sufficient training materials and qualified instructors is crucial for skill development. Furthermore, practical training benefits significantly from real-life project opportunities and community-based applications that reflect actual field conditions.

However, several constraints within government-aided technical institutes in the Lango sub-region continue to hinder effective training. Inadequate infrastructure, insufficient instructional materials, poorly equipped workshops and a shortage of qualified instructors undermine both discipline and practical skills acquisition (Kyoshaba, 2020; Kayiwa, 2017). Moreover, inconsistent enforcement of institutional rules, coupled with cultural perceptions that undervalue vocational education and a lack of parental involvement, contribute to student disengagement and behavioral challenges (Mukasa & Ssenkusu, 2021; Mugisha, 2018). Negative behaviour such as absenteeism, tardiness and disinterest disrupt instructional delivery, resulting in reduced learning outcomes (Bintey, 2019). Addressing these challenges requires sustained investment in infrastructure, enhancement of institutional leadership, and the establishment of a disciplined and supportive learning environment that promotes both personal responsibility and professional competence.

1.2 Statement of the Problem

Technical institutions should ideally produce disciplined students who excel in practical skills acquisition, particularly in carpentry and joinery, contributing to Uganda's Vision 2040 and the Skilling Uganda strategy (Oladeva, 2023; Oviawe & Anaele, 2020). In reality, persistent low discipline among technical, vocational education and training (TVET) learners manifested through chronic lateness, irregular attendance, poor time management and weak task persistence. This continues to hinder practical skills development, resulting in graduates who are unable to competently use basic tools or execute standard joinery techniques, as reported in Northern Uganda (Ocen & Akello, 2021; Alebtong District Education Office Report, 2022). Contributing factors includes; infrastructural inadequacies such as outdated equipment in over 70% of institutions and predominantly theoretical curricula in 65% of programs (MoES, 2019). Financial constraints limiting access to workshop training materials and industrial attachments (World Bank, 2022). And insufficient instructors industry exposure, with 64% lacking current practical experience (Tukundane et al., 2015). These challenges lead to disengagement, reduced project completion, low motivation for hands-on learning and a mismatch between TVET outputs and employer expectations, exacerbating youth unemployment (UBOS, 2022; UNICEF, 2023). While government interventions have provided grants, qualified instructors, some hand tools and equipment. The gap remains in ensuring that students can effectively apply practical skills post-training, particularly as limited follow-up exists on skill advancement in successive training years. This study, therefore, examined the relationship between students' discipline and practical skills acquisition, as understanding this connection is vital for improving instructional strategies, enhancing learning outcomes and preparing graduates for the labour market.

1.3 Purpose of the Study/The main Objective.

To determine the relationship between students' discipline and the acquisition of practical carpentry and joinery skills among its students enrolled in technical institutes within Lango Sub-Region.

1.3.1 Specific Objectives

i. To examine the relationship between students' punctuality/time management and practical skills acquisition among carpentry and joinery students in the selected technical institutes in Lango Sub-Region.

ii. To explore the influence of students' respectful interactions and the acquisition of practical skills development among carpentry and joinery students in selected technical institutes in Lango Sub-Region.

iii. To investigate the impact of students' participation on the acquisition of practical skills competencies among carpentry and joinery students in selected technical institutes in Lango Sub-Region.

1.3.2 Research Questions.

The research questions that the study attempted to answer include;

i. What relationship does punctuality/time management have on practical skills acquisition among carpentry and joinery students in selected technical institutes in Lango Sub-Region?
ii. What is the influence of students' respectful interactions on the acquisition of practical carpentry and joinery skills development?
iii. What is the impact of students' participation on the acquisition of practical carpentry and joinery skills competencies?

1.3.3 Hypotheses

(1) Null Hypothesis (H_0): There is no significant relationship between learners' level of discipline and their acquisition of practical carpentry and joinery skills.

Alternative Hypothesis (H_1): There is a significant positive relationship between learners' level of discipline and their acquisition of practical carpentry and joinery skills.

1.4 Scope of the Study

The scope of this study was delineated into three dimensions: content, geographical and time to ensure a clear understanding of the boundaries and focus of the research.

1.4.1 Content Scope

The study explored the relationship between students' discipline and the acquisition of practical skills in carpentry and joinery among learners enrolled in selected technical institutes within

Lango Sub-Region. It examined how key disciplinary factors such as punctuality and time management, respectful interactions with peers and instructors and active participation in learning activities and self-regulation influenced the development of practical competencies. The study also investigated the impact of these disciplinary behaviour on specific dimensions of practical skills acquisition, including accuracy in measurement and execution, resourcefulness in using available materials, adherence to safety protocols, effective application of tools and the refinement of final project outputs. By focusing on these aspects, the study aimed to provide a comprehensive understanding of how disciplined behaviour affected both the process and quality of skill acquisition in carpentry and joinery.

1.4.2 Geographical Scope

Geographically, the study was conducted in Lango Sub-Region of Northern Uganda, covering four selected government aided technical institutes: Barlonyo Agro Technical Institute in Lira District, Okwang Technical Institute in Otuke District, Amugo Agro Technical Institute in Alebtong District and Abia Memorial Technical Institute, also in Alebtong District. These institutes were selected because they primarily serve rural youth who, after completing primary seven (P.7) or senior four (S.4), had limited access to further academic education, making technical and vocational education their most viable pathway. The selected institutes provided an ideal context to examine the influence of student discipline on practical skills acquisition, given the diversity of student backgrounds, resource availability and workshop environments across the sub-region.

1.4.3 Time Scope

The study focused on the period from 2018 to 2024, using this range to reference recent and relevant literature, policies and educational practices. Data collection and analysis were conducted over four months, between April and September 2025. This time was considered sufficient to gather comprehensive data, analyze results and derive meaningful conclusions regarding the relationship between students' discipline and practical skills acquisition. By restricting the study to this period, the research ensured that findings reflected contemporary practices and challenges within technical education in the Lango Sub-Region.

1.5 Significance of the study

The study findings hoped to assist in;

This study holds considerable significance for a broad spectrum of stakeholders within technical and vocational education and training (TVET). Its focus on carpentry and joinery, particularly within Lango Sub-Region, makes it highly relevant to current challenges and opportunities in the sector.

Firstly, enrolled students stand to directly benefit. The research illuminated the crucial connection between discipline and the development of practical skills, empowering them to understand and improve their own learning approaches.

It is hoped that instructors and trainers would gain valuable insights. The study should inform refinements to teaching methodologies and classroom management, ultimately creating a more effective learning environment for skill acquisition.

Researchers in vocational education and educational psychology will find this a valuable contribution. The study provides empirical data on the often-complex relationship between student discipline and practical skill development, expanding the existing knowledge base.

Principals and administrators of technical institutes can leverage the results to shape institutional policies and resource allocation. This includes prioritizing strategies that cultivate both discipline and practical competency among students.

Finally, policymakers at regional and national levels can utilize this research to guide curriculum development, teacher training, and broader TVET reform, ultimately contributing to a more skilled workforce and economic growth.

1.6 Conceptual framework

Figure-1 illustrated the conceptual framework for this study, which examined the influence of students' discipline on the acquisition of practical carpentry and joinery skills. Students' discipline, as the independent variable, included key components such as punctuality/time management, respectful interactions and active participation. These aspects reflected learners'

engagement, responsibility and behavioral consistency which are critical traits in practical hands-on learning environments (Sawchuk, 2021; Craven, 2022). Punctuality/time management demonstrated student's ability to plan and utilize learning time efficiently. While respectful interactions highlighted social competence and adherence to institutional norms. Active participation signified both behavioral and cognitive involvement in learning tasks and self-regulation to monitor and control their actions to achieve skill mastery.

Practical skills acquisition, was represented through measurable competencies such as accuracy in executing tasks, resourcefulness in using available materials, adherence to safe workshop practices and versatile use of tools and techniques. Additionally, project completion and refinement, technical drawing and design interpretation reflected the level of mastery attained by the learners (Cesilia et al., 2018; Hurlock, 2017). The framework posited that students who exhibited high levels of discipline supported by enabling conditions, were more likely to acquire and apply practical carpentry and joinery skills effectively, demonstrating both proficiency and confidence in technical tasks.

Furthermore, the relationship between students' discipline and skill acquisition was influenced by mediating variables, including the social environment, school culture and social-economic status or family background. A supportive social environment promoted collaboration, motivation and peer learning. While a strong school culture reinforced behavioral expectations, workshop discipline and learning values (Duff, 2019; Pratiwi et al., 2023). Socio-economic background influenced access to resources, continuity in participation and the ability to engage fully in practical sessions.

These mediating factors either strengthened or weakened the impact of discipline on skill outcomes, highlighting the complex interplay between individual behaviour and contextual factors in technical education.

The conceptual framework, therefore, provided a clear visual and theoretical guide for understanding how disciplined behaviour and supporting environmental factors jointly contributed to the acquisition of practical skills among carpentry and joinery students in technical institutes within Lango Sub-Region.

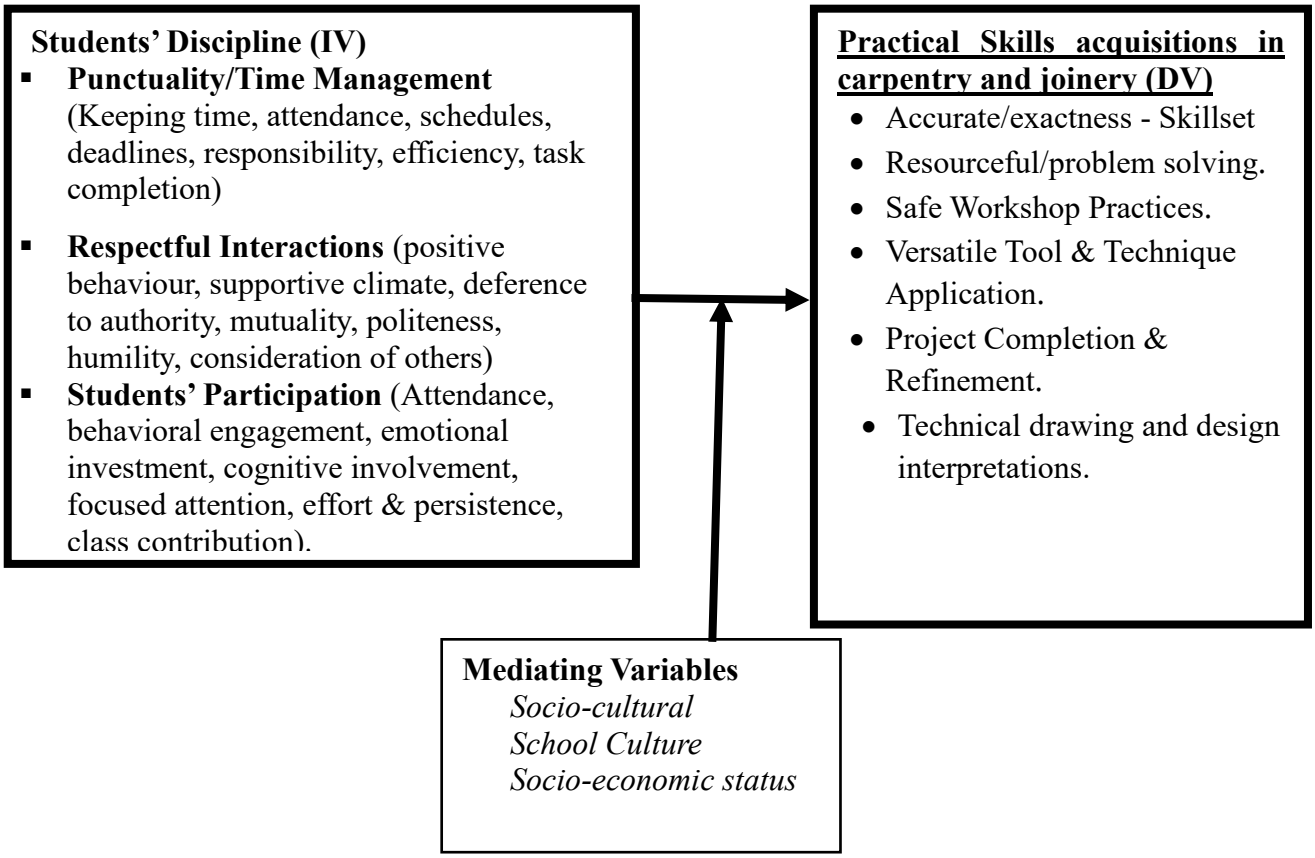


Figure 1: Conceptual Framework showing the relationship between Students' Discipline and Practical Skills acquisitions in carpentry and joinery.

Source: Adopted from *Gottfredson et al., 2020 and modified by the researcher, 2025*

CHAPTER TWO

Literature Review

2.0 Introduction

This chapter reviewed literature related to students' discipline and practical skills acquisition among carpentry and joinery students in selected technical institutes. It focused on four objectives: examining the relationship between time management and skills acquisition, exploring the link between respectful interactions and practical skills acquisition, investigating the impact of students' participation and determining the overall influence of discipline on practical skills development. The review highlighted how aspects of discipline, including punctuality/time management, self-regulation, engagement and social behaviour, affect learning outcomes, mastery of technical competencies and preparedness for professional work.

2.1 Theoretical Review

2.1.1 Skills Acquisition Theory

Skills Acquisition Theory, as articulated by Ellis and Shiritani (2013), provides a framework for understanding how learners progress through stages of skills development. This theory posits that practical skills are acquired in three stages: the declarative stage, where learners consciously understand rules and procedures; the procedural stage, where learners begin performing tasks with less conscious effort and the automaticity stage, where tasks are executed fluidly without deliberate thought. This progression underscores the importance of practice and discipline in mastering practical skills. In the context of technical education, such as carpentry and joinery programs, students often begin with declarative knowledge, learning rules and procedures associated with their craft trades. As they engage in hands-on practice, they transition to the procedural stage, applying their knowledge to real-world tasks with increasing efficiency. With continued practice, students reach the automaticity stage where skills are performed with minimal conscious thought and tasks become second nature (DeKeyser, 2010). This model emphasizes that the acquisition of practical skills is a gradual process that requires consistent discipline and practice.

One of the core assumptions of Skills Acquisition Theory is that, learning is incremental and requires ongoing constant practice and feedback (Ellis & Shiritani, 2013). This assumption is particularly relevant in technical education, where students need to engage in regular, focused

practice to move from declarative to procedural knowledge. Additionally, the theory asserts that errors are an integral part of the learning process, providing opportunities for students to correct and refine their skills (DeKeyser, 2010). This highlights the significance of structured learning environments in fostering skills development, where students can practice without fear of failure and receive constructive feedback that enhances their progression. However, a potential gap in this theory is lack of explicit attention to the socio-cultural factors and institutional barriers that may impede consistent practice, such as insufficient resources, overcrowded classes, or inadequate support systems for learners, especially in underfunded contexts like Sub-Saharan Africa. These factors can significantly slow students' progression, particularly in the procedural and automaticity phases (Muwagga & Ssempebwa, 2020).

Another gap in Skills Acquisition Theory lies in its emphasis on individual learning without fully considering the potential impact of collaborative and social learning processes. While the theory stresses that learners move through stages at their own pace, in technical and vocational settings like carpentry and joinery, peer collaboration and mentoring play crucial roles in skills development (Bandura, 1986; Schunk, 2012). Without fostering a culture of collaboration and support among learners, the progression from declarative to procedural knowledge may be hindered. This gap could be addressed by integrating social learning components, such as group work, peer feedback and mentor-based learning which would provide students with opportunities to observe and learn from one another, enhancing their skills acquisition process (Ormrod, 2016; Gani et al., 2023).

Moreover, the theory's assumption that learners would consistently engage in the practice required to advance to automaticity may not always hold true, particularly in environments where motivation and discipline are challenges. To avert this gap, there needs to be a greater focus on the external factors that influence students' engagement in practical training, such as student discipline, institutional support and access to resources. Research by Kaggwa (2019) and UBOS (2021) highlights the impact of poor discipline, absenteeism and lack of resources for practical training. To address these gaps, institutions could implement structured programs that encourage regular attendance, timely practice and appropriate behaviour, alongside providing consistent feedback to guide students through each stage. By addressing these gaps, the theory could become more applicable to real-world diverse educational contexts, fostering an environment where learners not only develop technical skills but also engage in sustained, disciplined practice that leads to skills mastery (DeKeyser, 2010; Craven, 2022).

2.2 Review of Related Literature

2.2.1 Time Management and Practical Skills Acquisition

Students' punctuality, demonstrated through consistent attendance at scheduled, workshops and class assessments, was identified as a crucial aspect of discipline that directly influenced the acquisition of practical skills in carpentry and joinery (Jovanovic et al., 2019). Punctuality ensured that students maximized learning opportunities, followed structured instructions and participated fully in hands-on activities, all of which enhanced their technical competence. The Theory of Planned Behaviour suggests that students' time management is influenced not only by personal attitudes but also by perceived control and institutional expectations (Ajayi & Adeoye, 2020), highlighting that effective time management arises from a combination of individual responsibility, social influences and organizational culture. However, while general factors affecting punctuality have been explored, there is limited research examining its direct impact on specific practical skills within technical institutes, leaving a gap in understanding the precise relationship between time management and skills acquisition.

Effective time management allowed students to systematically engage in practical tasks such as measuring, cutting, assembling and finishing carpentry and joinery projects (Lwanga, 2021). Structured routines enabled learners to balance theoretical instruction with hands-on practice, reinforcing learning through repetition and deliberate effort. Empirical evidence indicated that students who adhered to schedules completed assignments more accurately and efficiently, reducing errors and improving overall competency. Despite this, limited data exists quantifying the correlation between punctuality and measurable improvements in practical skills in the Ugandan technical institute context, highlighting a significant gap in the literature.

Time management also facilitated self-regulation, enabling students to plan, prioritize, and execute tasks efficiently (Okello & Nakirya, 2022). Students who demonstrated these traits were better able to manage distractions, cope with workload demands and sustain motivation during extended workshops and complex projects. Effective time management promoted active engagement, allowing students to reflect on mistakes, seek feedback and adjust their approach to practical tasks. Nevertheless, few studies have integrated measures of self-regulation with practical outcomes, leaving a gap in understanding how planning and task prioritization translate into skill development.

Institutional factors such as clear schedules, timely communication of deadlines and enforcement of attendance policies significantly influenced students' punctuality and discipline (Tukundane et al., 2015). Technical institutes that provided structured learning environments and supportive instructors observed higher student engagement and improved practical outcomes. Institutional reinforcement of punctuality motivated learners to adhere to schedules and complete projects effectively. However, limited research has explored how administrative policies in technical institutes interact with students' time management behaviour to influence practical skills acquisition, indicating an area requiring further investigation.

Cultural and socio-economic factors further moderated the relationship between time management and practical skill acquisition (Kigenyi, 2020). Students who faced family obligations, transport challenges or community responsibilities to poor roads, often struggled to maintain punctuality, which affected their consistent engagement in workshops. These external pressures emphasized the importance of considering broader social contexts when analyzing student discipline in technical education. However, few localized studies have examined the specific impact of regional socio-economic constraints in Northern Uganda on time management and skill development, leaving a notable research gap.

Active engagement, as an extension of punctuality, enhanced students' behavioral, emotional, and cognitive involvement during practical sessions (Nabwire & Ochieng, 2019). Learners who arrived on time were more likely to participate in group projects, collaborated with peers and demonstrate initiative in problem-solving, all of which strengthened practical competence. Early engagement allowed students to familiarize themselves with tools, training materials and techniques, leading to improved accuracy and efficiency in task completion. Despite these benefits, most studies have focused on mere attendance rather than linking punctuality to active participation and measurable technical competence, highlighting another gap.

Challenges persisted in ensuring consistent discipline among students despite the clear benefits of punctuality and effective time management (Oladeva, 2023). Poor planning, lack of personal motivation or unclear workshop expectations often resulted in absenteeism and delays in project completion, disrupting individual and cohort learning outcomes. These challenges underscored the need for targeted interventions to improve time management and discipline. However, there is limited research providing evidence-based strategies for enhancing punctuality and task management in technical institutes, especially within Lango Sub-Region.

Therefore, time management emerged as a critical determinant of practical skills acquisition, influencing students' ability to engage in hands-on activities, manage tasks effectively and maintain focus (Oviawe & Anaele, 2020). Considering individual, institutional and socio-cultural factors offered a comprehensive perspective on how punctuality contributes to skill development. Future research should address the identified gaps by conducting longitudinal studies to quantify the impact of time management on practical competencies and explore interventions tailored to regional challenges, providing evidence to guide policy makers and improve outcomes in technical education.

2.2.2 The influence of Respectful Interactions on Practical Skills development.

Respectful interactions among students, encompassing positive behaviour, politeness, consideration of others and deferences to authority, were significantly found to influence the acquisition of practical carpentry and joinery skills (Amemiya et al., 2020). When students demonstrated mutual respect and maintained supportive relationships with peers and instructors, the learning environment became more orderly, collaborative and conducive to hands-on engagement. Social Identity Theory supports this finding, suggesting that respectful behaviour fosters a sense of belonging and shared responsibility which in turn motivates learners to participate actively and follow workshop protocols. However, while the theory highlights the psychosocial benefits of respectful interactions, limited studies have linked such behaviour directly as a gap to measurable improvements in technical skills acquisition.

Research has shown that positive respectful interactions reduce disruptions during practical sessions, allowing students to focus on learning tasks and acquire technical competencies more efficiently (Hein, 2020). Respectful students were observed to follow instructions carefully, assist peers responsibly and maintain safety standards, all of which reinforced skill development. Moreover, social cohesion encouraged peer learning and collective problem-solving which enhanced creativity and precision in carpentry and joinery projects. Despite these observations, there is a lack of empirical studies in rural technical institutes, particularly in Northern Uganda, examining how respectful interactions specifically translate into practical skills acquisition, leaving an important gap in localized evidence.

Institutional culture also played a role in shaping respectful behaviour among students (Bintey, 2019). Schools that emphasized codes of conduct, positive reinforcement and structured mentorship programs reported higher levels of discipline and student cooperation which positively influenced skill acquisition. Conversely, weak enforcement of behavioral

expectations often led to conflicts, absenteeism and diminished focus during workshops. Nonetheless, most existing studies focus on primary and secondary education, leaving the effects of institutional culture on respectful interactions at the technical institute level underexplored, creating another gap in the literature.

Methodological limitations were evident in previous research, with many studies relying solely on quantitative or qualitative approaches (Liu, 2022). While statistical analyses provide generalizable patterns, they often overlook the nuanced ways in which interpersonal behaviour affects engagement in practical tasks. Qualitative insights offer depth but may lack representativeness. There is a clear need for mixed-methods studies that integrate both approaches to capture the full impact of respectful interactions on the development of technical competencies. Addressing this gap can inform strategies for improving classroom and workshop dynamics, ultimately enhancing practical skills acquisition in carpentry and joinery.

Cultural and socio-economic contexts further moderated the relationship between respectful interactions and skill acquisition. Students from communities emphasizing collective responsibility and politeness were more likely to engage collaboratively, complete projects efficiently and adhere to safety guidelines. Conversely, students facing external pressures such as household responsibilities or limited resources occasionally struggled to maintain positive interactions, affecting their learning outcomes. Yet, few studies have examined how regional and cultural variations influence respectful behaviour in technical education, leaving a gap in context-specific understanding.

Respectful interactions also encouraged emotional and cognitive engagement, which strengthened problem-solving attention to detail and task persistence (Sawchuk, 2021). Students who respected their instructors' guidance and peers' contributions demonstrated higher motivation and focus during complex practical tasks. Such engagement allowed them to refine technical skills systematically, improving both quality and efficiency of project completion. However, the literature rarely connects these behavioral traits directly to performance metrics in practical skill assessments, highlighting a gap for future research.

Peer modeling emerged as another significant factor, with respectful and cooperative students influencing others to adopt similar behaviour (Craven, 2022). This created a positive feedback loop in which mutual support, accountability and encouragement enhanced workshop productivity and skill mastery.

Despite this, there is limited empirical evidence quantifying the ripple effect of peer interactions on technical competencies, particularly in Ugandan technical institutes, leaving room for further investigation.

Therefore, respectful interactions were critical for fostering an effective learning environment, promoting cooperation, safety and skill acquisition (Hein, 2020). However, gaps remain regarding the impact of these behaviour in rural technical institutes, their connection to measurable competencies and the influence of socio-cultural factors. Future research should adopt mixed-methods approaches to explore these dimensions, providing actionable insights for instructors, administrators and policymakers aiming to enhance practical skills among carpentry and joinery students.

2.2.3 Students' Participation on Practical Skills competencies.

Students' participation in learning activities, encompassing behavioral, emotional and cognitive engagement significantly influenced the acquisition of practical carpentry and joinery skills. Active participation involved consistent attendance, focused attention, persistent effort and meaningful contribution to both classroom and workshop tasks (Pratiwi et al., 2023). When students engaged actively, they were more likely to internalize theoretical knowledge and translate it into practical competencies. Socio-cultural theory supports this, suggesting that engagement is shaped by cultural and institutional contexts, which influence how students interact with instructors, peers and use learning materials (Duff, 2019). However, previous studies have primarily examined academic participation, leaving gaps regarding its impact on hands-on skill acquisition in technical institutes.

Ethnographic research has highlighted that participatory behaviour in practical sessions fosters skill mastery (Lewis et al., 2020). Students who took initiative during workshops, collaborated with peers and followed instructors' guidance demonstrated higher proficiency in tasks such as; interpretation of drawings, measuring, cutting, assembling and finishing projects. Active engagement facilitated experiential learning, allowing students to refine skills through repetition and instructor feedback. Despite these insights, most research was context-specific, limiting understanding of participation patterns in diverse rural and urban technical institutes, creating a gap this study sought to fill.

Methodological limitations in prior studies have also constrained understanding of participation and skill acquisition. Qualitative studies provided detailed narratives of student

engagement but lacked quantifiable evidence of its effects, while quantitative surveys often overlooked the depth and quality of interactions in practical sessions. Few studies have integrated both qualitative and quantitative methods to examine participation holistically. This research employed a mixed-methods approach to address this gap, combining surveys and interviews to capture both the breadth and depth of students' engagement.

Modern learning environments, including digital and extracurricular contexts, emphasized another research gap. Participation was not limited to physical presence in workshops but extended to engagement in online discussions and collaborative problem-solving outside scheduled sessions. Few studies examined how these broader forms of participation influenced practical skill mastery, leaving a gap in understanding student engagement in contemporary technical education (Pratiwi et al., 2023).

Socio-emotional factors also played a critical role in shaping participation outcomes. Students who were motivated and confidenty supported by instructors or peers participated more actively in practical tasks (Duff, 2019). This increased engagement enabled them to handle complex challenges, manage time effectively and remain committed to learning. Despite this, limited research has explored the interaction between socio-emotional support and participation in technical skill acquisition, indicating an important area for further investigation.

Peer influence further reinforced students' participation and skill development. Collaborative engagement encouraged knowledge sharing, peer feedback and joint problem-solving which enhanced students' technical competencies (Lewis et al., 2020). Nevertheless, the mechanisms by which peer interactions translate into measurable improvements in practical skills remain underexplored, particularly within Ugandan technical institutes, representing another gap addressed by this study.

Longitudinal patterns of participation were also relevant to skill acquisition. Students who maintained consistent engagement over time, exhibited progressive improvements in accuracy, resourcefulness and adherence to safety protocols (Pratiwi et al., 2023). Most prior studies provided only cross-sectional data, failing to capture how sustained participation over months or years influences skill mastery. This study addressed the gap by assessing participation over a defined period, offering insights into cumulative learning effects.

Therefore, student participation strongly influenced the acquisition of practical carpentry and joinery skills. However, gaps remain concerning its role across diverse learning contexts, its measurement, socio-emotional peer influences and longitudinal development. A mixed-method research design was employed and examining participation in both workshop and extended learning contexts. This study provided a comprehensive understanding of how student engagement drives skill acquisition and informed strategies to enhance practical learning outcomes in technical institutes.

2.2.4 Relationship between Students' Discipline and Practical Skills Acquisition.

Students' discipline has long been recognized as a key factor in determining how effectively students learn and acquire practical skills in technical and vocational education and training (TVET). Punctuality/time management, respectful interactions and active participation are often cited as the core elements of discipline that shape a student's engagement and performance in workshops. Punctuality, for example, goes beyond simply being on time; it reflects a student's respect for instructors, commitment to learning and ability to manage time efficiently (Jovanovic et al., 2019). However, previous research often overlooks real-life challenges that influence punctuality, such as transportation difficulties, family responsibilities and inconsistent school policies. These gaps suggest that student discipline cannot be fully understood without considering the broader context in which learners operate.

In carpentry and joinery, acquiring practical skills is not just about following instructions it requires precision, problem-solving, safe workshop practices, adaptability with tools and the ability to interpret working drawings and designs accurately (Cesilia et al., 2018). Studies like those from WorldSkills, (2020) shows that students who engage consistently with hands-on activities develop stronger technical competencies. Still, there is limited research on whether these skills are retained over time or applied effectively once students enter the workforce, leaving an important gap between classroom training and real-world employability.

Safety is another critical aspect of skill development. Following safety protocols allows students to work confidently, focus on tasks and reduce accidents (Saydam, 1996). Yet, there is little exploration of how students' perceptions of risks, the enforcement of safety rules and the overall institutional culture influence compliance. Understanding these factors is crucial because even the most disciplined student may struggle to learn effectively in an unsafe or poorly managed workshop environment.

Exposure to different tools and learning scenarios is essential for developing flexibility and creative problem-solving in carpentry and joinery. Sriwahyuni et al. (2019) highlight that disciplined students who consistently practice with various tools develop adaptability that benefits their technical work. However, many studies fail to consider the impact of limited resources, outdated equipment and crowded workshops. Even motivated students may find it difficult to excel if the environment does not support hands-on learning, indicating a gap in the literature regarding the intersection of discipline and infrastructure.

Beyond technical skills, creative and individualized aspects of learning are often neglected. Hurlock (2017), points out that most research emphasizes accuracy and technical proficiency while overlooking project refinement, aesthetic design and innovative thinking. This creates a gap in understanding how disciplined students develop not only competence, but also creative and adaptable skills which are essential for entrepreneurial success and personal growth in carpentry and joinery.

Economic and professional outcomes reveal another gap. The Uganda Ministry of Education & sports, (2021) reports that less than half of carpentry and joinery graduates transition into entrepreneurial ventures. This suggests that even disciplined students may struggle to apply their skills in professional contexts if they lack industry exposure, mentorship and financial support. Exploring how discipline interacts with these external factors could help bridge the gap between training and career readiness.

Social and institutional factors also play a crucial role. Sawchuk (2020), noted that the culture within workshops, peer influence and instructors' expectations can either strengthen or weaken students' discipline. A supportive and structured environment encourages punctuality and time management, respect and active engagement, while chaotic or unstructured settings may undermine this behaviour. Despite this, few studies have examined how such contextual factors shape the effectiveness of discipline in enhancing practical skills, leaving an incomplete picture of the learning environment's role.

In summary, the link between students' discipline and practical skills acquisition is clear, yet multiple gaps remain. Research has yet to fully explore the influence of institutional support, socio-cultural context, resource availability, creative skill development and career transition on the effectiveness of discipline in learning. Addressing these gaps could help technical institutes design more holistic programs that not only teach technical skills but also cultivate personal

discipline, creativity and adaptability students need to succeed in carpentry and joinery, and the wider workforce (Oladeva, 2023).

2.3 Summary of Literature Review

The literature review explored the relationship between students' discipline and the acquisition of practical carpentry and joinery skills in technical institutes. It highlighted key dimensions of discipline; including punctuality/time management, respectful interactions, active participation and self-regulation. It examined how these traits influence students' engagement, learning consistency and mastery of technical competencies. Empirical studies demonstrated that disciplined students were more likely to complete tasks accurately, adhere to safety standards, utilize tools effectively and integrate theoretical knowledge with practical application. Research also emphasized the role of supportive institutional culture, social environment, social-economic status and instructors' guidance in reinforcing students'positive discipline.

However, the review revealed several gaps. Most studies focused on secondary and urban educational settings, neglecting rural technical institutes at regional contexts such as Lango Sub-Region. Limited attention was given to creative skill development, aesthetic competencies and long-term application of acquired skills in professional or entrepreneurial settings. Additionally, the interplay between personal discipline, institutional support, resource availability and socio-economic factors remains underexplored. Methodologically, there is lack of mixed-method research that combines quantitative measurement of skills with qualitative insights into behavioral and motivational factors.

Overall, the literature indicated a strong theoretical and empirical link between discipline and practical skill acquisition, while underscoring the need for comprehensive context-specific studies. Addressing the identified gaps would inform interventions that strengthen students' discipline, enhance technical competencies and improve graduates' readiness for work and labour market.

CHAPTER THREE

Methodology

3.0 Introduction

This chapter presents the outline and the research methodology that was used to investigate the study. The purpose of this chapter was to explain the methodological framework that guided the study, that is; approach, design, target population, sampling methods, data collection procedures, data analysis and ethical considerations.

3.1 Research Approach

The study employed mixed methods design, integrating both quantitative and qualitative data collection and analysis procedures. This approach was beneficial because it allows for a comprehensive exploration of both statistical relationships between student discipline and skills acquisition. As well, the experiential and contextual factors that influence these outcomes was considered, (Creswell, 2014). The quantitative component involved the collection of numerical data to examine patterns and correlations. While the qualitative component provided deeper insights into the perceptions, experiences and institutional factors related to the phenomenon under investigation (Creswell & Creswell, 2018).

3.2 Research Design

The study adopted a convergent parallel mixed-methods design. In this design, quantitative and qualitative data was collected concurrently analyzed separately and then compared or integrated during interpretation, (Creswell & Plano Clark, 2018). This design allowed the researcher to draw on the strengths of both methods, combining the objectivity of quantitative data with the depth of qualitative findings. The design facilitated the identification of patterns and relationships in the quantitative data. While the qualitative data provided a more nuanced understanding of the educational practices, policies and perceptions of stakeholders involved in Carpentry and Joinery programs.

3.3 Study Area

The study was conducted in four selected government-aided technical institutes located in Lango Sub-Region of Northern Uganda, namely Abia Technical Institute (Alebtong District), Okwang Technical Institute (Otuke District), Amugo-Agro Technical Institute (Alebtong

District) and Barr Lonyo Technical Institute (Lira District). These government technical institutes have been selected because they offer Carpentry and Joinery programs and are representative of the broader technical education landscape in the region. They are geographically dispersed across the sub-region and provided a diverse set of contexts, enriching the findings of the study. Additionally, their location in rural areas may present unique challenges and opportunities concerning technical, vocational training, discipline and practical skills acquisition, making them ideal for this research.

3.4 Target Population

The target population for the study consisted of three distinct groups: students enrolled in the Carpentry and Joinery programs at the selected technical institutes, instructors who teach Carpentry and Joinery. And institutional leaders such as Principals, Deputy Principals, directors of training and Heads of Department (HODs), who oversee the academic and administrative functions of the institutes. Each group provided a unique perspective on the relationship between student discipline and practical skills acquisition. By including all these groups, the study aimed to capture a comprehensive view of how discipline affects practical skill development, ensuring that all relevant viewpoints are considered for a thorough analysis.

3.5 Sampling Techniques and Sample Size Determination

3.5.1 Sampling Techniques

The study used a combination of purposive and simple random sampling. A purposeful sampling method was used to select all institutional leaders, as their small population size and strategic roles make them ideal candidates for this approach. For the instructors and students, simple random sampling was employed. This was to ensure that every member of these groups has an equal chance of being selected, minimizing sampling bias and enhancing the generalizability of the findings (Saunders et al., 2019).

3.5.2 Sample Size Determination

The sample size was calculated using Krejcie and Morgan's (1970), table for sample size determination for finite population. The total population of the selected institutes is approximately 112 individuals. Using this formula, the sample size was calculated to ensure that the study's findings were statistically significant and reliable. Based on this calculation, the sample size for the study was 98 respondents.

The sample was distributed as follows:

Table 1: Sampling table

Category	Target Population	Sample Size	Sampling Technique
Institutional Leaders	12	11	Purposive
Instructors	20	19	Simple Random Sampling
Students	80	67	Simple Random Sampling
Total	**112**	**97**	

Data Source: Primary Source

3.5.3 Sampling Technique

The study involved 98 participants; including 12 institutional leaders, 19 instructors, and 67 students. Institutional leaders were selected using a purposive sampling technique, while instructors and students were chosen through simple random sampling. The sample sizes reflect the population of 12 institutional leaders, 20 instructors, and 80 students across the selected institutes.

3.6 Data Collection Procedures.

The researcher oversaw all administrative aspects of the study, including arranging meetings, conducting data collection and ensuring that all logistical requirements are met. The researcher collaborated with institutional leaders to schedule data collection at convenient times for students and instructors.

3.7 Data Collection Methods.

3.7.1 Questionnaires Survey.

A questionnaire survey is a method of collecting data using a structured set of written questions administered to respondents, often designed with both closed and open-ended items to capture measurable responses. In this study, questionnaires were administered to carpentry and joinery students to obtain standardized information on levels of discipline and the extent of practical skills acquisition. This method was appropriate because it enables the collection of data from a large number of respondents within a short time, ensuring consistency and ease of analysis.

3.7.2 Interviews

Interviews are a qualitative data collection method involving direct, face-to-face or verbal interaction between the researcher and respondents using a set of guiding questions. In this study, interviews were conducted with instructors and institute administrators to gain deeper insights into how students' discipline influences practical skills acquisition in carpentry and joinery. This method was suitable because it allowed for probing, clarification, and exploration of complex issues that cannot be fully captured through questionnaires.

3.8 Data Collection Instruments

3.8.1 Questionnaires

The researcher, began by administering a structured questionnaire to both students and instructors. The questionnaire consisted entirely of closed-ended questions, primarily measured on a five-point Likert scale to capture participants' responses in a standardized manner. The Likert scale ranged from 1 to 5, with 1 representing "Strongly Disagree," 2 indicating "Disagree," 3 signifying "Neutral," 4 indicating "Agree," and 5 denoting "Strongly Agree." The independent variables (IVs) in the questionnaire assessed factors influencing students' discipline and skills acquisition, such as institutional policies (e.g., rules and regulations), resource availability (e.g., tools, training materials), instructional quality (e.g., teaching methods, instructors' expertise) and motivation (e.g., intrinsic and extrinsic factors). The dependent variables (DVs) focused on the outcomes related to students' behaviour and skill development, including students' discipline (example time management, attendance, behaviour during practical lessons) and practical skills acquisition (example proficiency in carpentry & joinery techniques, tool usage and task completion time). The use of Likert-scale questions allowed the researcher to quantify data on both discipline and skill acquisition, providing insights into the impact of institutional and instructional factors on student outcomes.

3.8.2 Interview Guide

The researcher conducted interviews with institutional leaders and a selected group of instructors, focusing on topics such as institutional policies for managing student discipline, approaches to teach practical Carpentry and Joinery skills, challenges in balancing discipline with effective skills training and the role of institutional leadership in fostering both discipline and skill development. The semi-structured format was constructed to provide flexibility, allowing for in-depth exploration of these topics while ensuring that all key areas are covered.

3.9 Data Quality Control (Quantitative and Qualitative data)

To ensure the integrity, accuracy and credibility of the research findings, this study implemented rigorous data quality control measures for both quantitative and qualitative data.

3.9.1 Quantitative Data Quality Control

3.9.1.1 Validity

To establish content validity, the researcher utilized a panel of experts, including specialists in technical, vocational education and training research methodology, to review the questionnaire items. The Content Validity Index (CVI) was applied to determine the relevance and appropriateness of each item. Items with an Item-Level CVI (I-CVI) score of 0.80 or above were retained (Polit & Beck, 2006).

$$\text{I-CVI} = \frac{\text{Number of experts rating the item as 3 or 4}}{\text{Total number of experts}}$$

$$\frac{27}{31} = 0.87$$

A pilot study was conducted with a small sample of students from a non-participating institution to assess the instrument's clarity, relevance and usability. Feedback from this pilot informed final revisions to the instrument.

3.9.1.2 Reliability

The reliability of the questionnaire was assessed using the test–retest method, whereby the same respondents completed the instrument twice at an interval of one week. To determine internal consistency, Cronbach's alpha (α) was employed, with values of 0.70 or higher considered acceptable for reliability (Amin, 2005). The formula for Cronbach's alpha is expressed as:

$$\alpha = \frac{N \times \bar{c}}{\bar{v} + (N - 1) \times \bar{c}}$$

Where:

- N = number of items,
- $\bar{c}$ = average inter-item covariance among items,

- $\bar{v}$ = average variance of each item.

All questionnaire statements (V1–V5, W1–W6, X1–X5, and Z1–Z5) were subjected to carefully selected individuals who indicated their level of agreement with the correctness of each statement in order to assess the intended subject. A Cronbach's Alpha value of 0.70 or higher was considered acceptable for internal consistency (Amin, 2005). The results are summarized in Table 2.

Table 2: Reliability test

Objective/Variable	Cronbach's Alpha	No. of Items	Comment
Objective One: Time Management	0.771	5	Good internal consistency
Objective Two: Respectful Interactions	0.714	5	Acceptable reliability
Objective Three: Participation in Practical Activities	0.722	5	Acceptable reliability
Dependent Variable: Practical Skills Acquisition	0.702	5	Acceptable threshold reached

The reliability analysis revealed acceptable levels of internal consistency across all study variables. Time Management ($\alpha = 0.771$) showed good reliability, while Respectful Interactions ($\alpha = 0.714$) and Participation in Practical Activities ($\alpha = 0.722$) reflected acceptable consistency. The dependent variable Practical Skills Acquisition ($\alpha = 0.702$) also met the minimum threshold, confirming the instrument's reliability. Thus, the questionnaire was statistically sound for data collection, aligning with the standard criterion of $\alpha \geq 0.70$ recommended by Amin (2005).

3.9.2 Qualitative Data Quality Control

Qualitative data quality was ensured through each member checking for credibility, peer debriefing for dependability and confirmability and providing rich detailed descriptions to enhance the transferability of findings.

3.10 Data Analysis

3.10.1 Quantitative Data Analysis

Quantitative data was analyzed using descriptive and inferential statistics. Descriptive statistics such as frequencies, percentages, mean and standard deviations was used to summarize the

data. Pearson's correlation was used to examine the relationships between student discipline and practical skills acquisition, while linear regression analysis was conducted to determine the predictive influence of discipline on skills acquisition.

Hypotheses were tested using inferential statistical techniques aligned with the research questions. A significance level of 0.05 was adopted as the cut-off point for all statistical tests, meaning that results with a *p*-value less than or equal to 0.05 were considered statistically significant. This threshold allowed the researcher to determine whether the observed relationships between students' discipline components (time management, respectful interactions and participation) and practical skills acquisition in technical institutes occurred by chance or represented meaningful associations.

3.10.2 Qualitative Data Analysis

Qualitative data from interviews and open-ended responses was analyzed using thematic analysis, following the framework outlined by Braun and Clarke (2006). The analysis process began with familiarization with the data, which involves thoroughly reading through the responses to gain an understanding of the content. Next, key themes were identified by grouping similar ideas and concepts that emerge from the data. These themes were reviewed to ensure they accurately capture the essence of the data and are relevant to the research questions. After refining the themes, they were defined and named to provide clarity on their meaning and significance. Finally, the researcher wrote the report, ensuring that the findings were clearly articulated and supported by direct quotes from the participants.

3.11 Ethical Considerations

Ethical considerations were prioritized throughout the study to ensure that all research activities complied with established guidelines for research involving human participants. Before commencing data collection, the researcher obtained approval and clearance for the study and secured an official letter of introduction from the Dean faculty of education and humanities of Gulu University.

Informed consent was sought from all participants, ensuring they fully understood the purpose of the study. And the voluntary nature of their participation, the measures was in place to safeguard their privacy and confidentiality. Participants were informed of their right to withdraw from the study at any point without facing any repercussions.

All data collected were treated with strict confidentiality through secure handling procedures, including restricting access to the researcher only and storing all completed instruments in password-protected files. Participants' identities were anonymized by assigning codes instead of names during data entry and analysis, ensuring that no personal identifiers were linked to the responses. This approach was maintained throughout the study to safeguard privacy, with all sensitive information carefully protected from unauthorized disclosure at every stage of the research process.

By following ethical measures, the study-maintained integrity and trust with participants. The researcher ensured that ethical principles guided every stage of data collection and reporting.

3.12 Limitations and Delimitations

The study faced several challenges in gaining access to participants due to bureaucratic procedures and institutional restrictions. This was addressed by securing an official introductory letter from the Dean of the Faculty of Education and Humanities, which facilitated smoother access to the selected technical institutes.

Response bias was another challenge, as students may have misreported their behaviour and instructors may have given subjective feedback. To reduce this, the researcher emphasized confidentiality and reassured participants that their responses would not affect their study work.

Irregular student attendance posed challenges because some students missed scheduled sessions. Multiple sessions were planned, and flexible timing was used to ensure broader participation and a more representative sample.

CHAPTER FOUR

Presentation and Interpretation of results

4.0 Introduction

This chapter presented and interpreted the findings of the study on students' discipline and practical skills acquisition among carpentry and joinery students in the Lango Sub-Region. Results showed that effective time management enhanced technical competence, while respectful interactions with peers and instructors promoted engagement and application of theoretical knowledge. Active student participation strongly correlated with mastery of practical skills and overall discipline including punctuality, adherence to rules and self-regulation was significantly linked to higher performance in hands-on tasks. Descriptive statistics on participants' demographics and perceptions supported these findings, highlighting the role of behaviour and attitude in practical skills development.

4.1 Response Rate

Out of a total sample of 98 students, 97 participated in the study, representing a high response rate of 99%. This high level of participation strengthened the reliability and credibility of the study findings. The single non-response was managed by noting the absence, ensuring that the analysis accurately reflected the characteristics and perspectives of the majority of students. A high response rate also enhanced the representativeness of the data, allowing for meaningful interpretation of students' discipline, practical skills acquisition, participation, respectful behaviour and time management in carpentry and joinery across selected technical institutes.

4.2 Demographic characteristics

The study examined the demographic profile of respondents, which included age, gender, marital status, entry qualifications, technical institute attended and availability of carpentry tools. Understanding these characteristics provided context for interpreting students' practical skills acquisition, active participation, respectful behaviour and punctuality/time management in carpentry and joinery.

Analysis of age revealed that the majority of respondents, 83 (85.6%), were aged between 18 and 24 years, indicating that most students were young adults at the early stages of their technical training. Only 5 respondents (5.2%) were below 18 years, and an equal number (5

respondents, 5.2%) were aged 25 to 30 years. Respondents aged 30 years and above were the least represented at 4 (4.1%). This suggested that technical institutes predominantly attracted younger students, which could influence energy levels, adaptability and engagement during practical sessions.

The gender distribution was highly skewed, with 96 respondents (99%) being male and only 1 respondent (1%) being female. This highlighted the male-dominated nature of carpentry and joinery courses in Lango sub-region and suggested potential gender disparities in enrolment. The minimal female representation could also affect classroom dynamics, group work interactions and participation patterns.

In terms of marital status, 88 respondents (90.7%) were single, while 9 respondents (9.3%) were married. This aligned with the young age profile and suggested that most students had fewer personal responsibilities outside their studies, enabling them to dedicate more time and attention to practical sessions, which likely supported practical skills acquisition.

Regarding entry qualifications, 47 respondents (48.5%) had attained the Junior Certificate, followed by 24 respondents (24.7%) with O level certificates. Nineteen respondents (19.6%) had completed Primary Leaving Examination (PLE), while only 1 respondent (1%) held a diploma and 6 respondents (6.2%) had a national certificate or postgraduate qualification. This indicated that most students entered the institutes with basic secondary education, which may influence theoretical understanding practical knowledge.

Respondents were fairly evenly distributed across the four technical institutes: Amugu (26 respondents, 26.8%), Abia Tech (24 respondents, 24.7%), Okwang (24 respondents, 24.7%), and Barlonyo (23 respondents, 23.7%). This balance suggested that the findings reflected experiences across different institutions and were not biased towards any single location.

Finally, the availability of carpentry tools was limited. Only 7 respondents (7.2%) reported having a complete set of engineering tools, 33 respondents (34%) had most of the tools needed. While the majority, 57 respondents (58.8%), had only some essential tools. Limited access to full equipment could have constrained practical learning, delayed task completion and influenced students' ability to develop advanced carpentry and joinery skills effectively.

In summary, the demographic profile indicated that most students were young, male, single, with basic secondary education, fairly balanced across the technical institutes and faced challenges in accessing complete carpentry tools. These characteristics provided important context for understanding students' performance, participation, respectful behaviour, time management and practical skills acquisition in the selected technical institutes. These findings are summarized in Table 3 below.

Table 3: Demographic Information of Respondents

Category	Frequency	Percent
Age		
Below 18 yrs.	5	5.2
18 to 24yrs	83	85.6
25 to 30 yrs.	5	5.2
30 yrs. and above	4	4.1
Gender		
Male	96	99
Female	1	1
Marital status		
Single	88	90.7
Married	9	9.3
Entry qualification		
PLE	19	19.6
Junior Certificate	47	48.5
O level Certificate	24	24.7
Diploma	1	1
National certificate/post-graduation	6	6.2
Technical institute attended		
Abia tech	24	24.7
Amugu	26	26.8
Barlonyo	23	23.7
Okwang	24	24.7
Availability of carpentry tools		
Have complete set of engineering tools	7	7.2
Have most of the tools needed	33	34
Have some essential tools	57	58.8

Source: Field data, 2025

4.3 Students' Discipline

Students' discipline was measured through punctuality/time management, respectful interactions and active students'participation, reflecting their attendance, responsibility, behaviour, engagement and effort in practical learning.

4.3.1 Time Management among Carpentry and Joinery Students

The study examined the extent to which students managed their time effectively during both practical and theory sessions. Analysis of the data indicated that punctuality was a significant challenge for many students. Specifically, 44.3% of respondents either strongly disagreed or disagreed that students consistently arrived on time for practical and theory sessions, while an equal proportion (44.3%) agreed or strongly agreed. This suggested that nearly half of the students struggled with punctuality, which could disrupt the smooth flow of lessons and practical exercises (Mean = 2.96, SD = 1.51).

Meeting deadlines for assignments and projects appeared slightly better but remained inconsistent. About 38.1% of students either strongly disagreed or disagreed with consistently meeting deadlines, whereas 48.5% agreed or strongly agreed that they submitted tasks on time. The neutral responses accounted for 13.4%, indicating that some students were uncertain about their own punctuality in completing assignments. These findings reflected a modest level of effectiveness in adhering to deadlines (Mean = 3.19, SD = 1.24). But they revealed that time management in assignment completion still required reinforcement to improve overall academic and practical performance.

Regarding effective time use during sessions, 35% of respondents disagreed or strongly disagreed that students managed their time well during practical and theory classes, with 48.5% agreeing or strongly agreeing. This implied that while a reasonable proportion of students demonstrated efficient use of class time, a significant number were still unable to maximize learning periods, potentially delaying skill acquisition (Mean = 3.15, SD = 1.39). The findings suggested the need for guidance on prioritizing tasks and structured practice schedules.

Students' sense of responsibility for their own learning and personal goals also showed mixed results. The data revealed that 41.3% of respondents disagreed or strongly disagreed that students took full responsibility for their learning progress. While 48.5% agreed or strongly agreed and 10.3% were neutral. This indicated a moderate tendency among students to take ownership of their learning (Mean = 3.14, SD = 1.49). Although some students were proactive

in managing their progress and setting personal objectives, others were less self-directed, which could limit their ability to achieve mastery in carpentry and joinery practical skills.

Finally, focus and avoidance of distractions during practical tasks were examined. About 36.1% of respondents disagreed or strongly disagreed that students remained focused. While 42.3% agreed or strongly agreed and 21.6% were neutral. This showed that distractions were a notable barrier for some students, potentially affecting the quality and timeliness of task completion (Mean = 3.12, SD = 1.42). Overall, the average scores across all indicators reflected moderate time management skills among students. This emphasizes the need for continued monitoring, mentoring, structured interventions to enhance punctuality. And effective time use, personal responsibility in practical and theoretical learning contexts (Average Mean = 3.11, SD = 1.41).

Table 4: Time Management among Carpentry and Joinery Students.

Where; SD= strongly disagree, D= disagree, N=neutral, A= agree and SA= strongly agree.

Time Management	SD (%)	D (%)	SD+D (%)	N (%)	A (%)	SA (%)	A+SA (%)	Mean	Std. Dev.
1. Students consistently arrive on time for practical and theory sessions.	24.7	19.6	44.3	11.3	23.7	20.6	44.3	2.96	1.51
2. Students consistently meet deadlines for assignments, projects, etc.	7.2	30.9	38.1	13.4	33.0	15.5	48.5	3.19	1.24
3. Students manage their time effectively during practical and theory sessions.	17.5	17.5	35.0	16.5	28.9	19.6	48.5	3.15	1.39
4. Students take responsibility for their learning progress and personal goals.	18.6	22.7	41.3	10.3	22.7	25.8	48.5	3.14	1.49
5. Students focus and avoid distractions while performing practical tasks.	17.5	18.6	36.1	21.6	18.6	23.7	42.3	3.12	1.42
Average	17.1	22.0	39.1	14.6	25.4	21.0	46.4	3.11	1.41

Source: Field Data, (2025)

4.3.2 Respectful Interactions among Carpentry and Joinery Students.

The study assessed the extent to which students exhibited respectful behaviour towards instructors, peers and workshop practices during practical sessions. The data indicated that a majority of students demonstrated high respect for instructors. Specifically, 83.5% of

respondents agreed or strongly agreed that students listened carefully and followed guidance during sessions, while only 14.5% disagreed or strongly disagreed. This suggested that respectful interactions between instructors and students created a positive learning atmosphere conducive to skill acquisition (Mean = 4.04, SD = 1.04).

In terms of supporting peers during group work, the findings were moderate. About 50.5% of respondents agreed or strongly agreed that students supported each other respectfully. While 30.9% disagreed or strongly disagreed and 18.6% were neutral. This indicated that while collaborative learning was generally encouraged, some students did not consistently show supportive behaviour towards peers. Such inconsistencies could influence teamwork efficiency and peer learning during practical tasks (Mean = 3.34, SD = 1.23).

The behaviour of students in discussions was mixed. Only 45.4% of respondents agreed or strongly agreed that students discussed politely and ensured all voices were heard. Whereas 38.1% disagreed or strongly disagreed and 16.5% were neutral. This suggested that although many students-maintained humility and courtesy, a significant proportion occasionally interrupted or dominated conversations, which could hinder inclusive learning and limit peer knowledge exchange (Mean = 3.16, SD = 1.47).

Regarding engagement without interruptions, 39.2% of respondents agreed or strongly agreed that students allowed others to express opinions respectfully. While 46.4% disagreed or strongly disagreed and 14.4% were neutral. This revealed that maintaining focus and respect for others' contributions remained a challenge for some students. Such behaviour could affect the overall learning environment, reduce active participation and slow the acquisition of practical skills (Mean = 2.79, SD = 1.47).

Finally, adherence to classroom authority by abiding to established rules and regulations showed moderate compliance. About 46.4% of respondents agreed or strongly agreed that students respected instructors' and coordinators' rules. While 38.1% disagreed or strongly disagreed and 15.5% were neutral. This indicated that while many students followed guidelines, a notable portion occasionally ignored instructions, which could disrupt workshop order and affect task completion (Mean = 3.22, SD = 1.51). Overall, the average score across all indicators suggested that students' respectful behaviour was generally positive but varied across specific areas, highlighting the need for ongoing guidance to strengthen discipline, peer support and adherence to workshop norms (Average Mean = 3.31, SD = 1.34).

Table 5: Students' Respectful Behaviour among Carpentry and Joinery Students Where; SD= strongly disagree, D= disagree, N=neutral, A= agree and SA= strongly agree

Students' Respectful Behaviour	SD (%)	D (%)	SD+D (%)	N (%)	A (%)	SA (%)	A+SA (%)	Mean	Std. Dev.
1. Students respect instructors by listening carefully and following guidance during sessions.	2.1	12.4	14.5	2.1	46.4	37.1	83.5	4.04	1.04
2. Students support peers respectfully during group work, promoting collaborative learning	6.2	24.7	30.9	18.6	29.9	20.6	50.5	3.34	1.23
3. Students discuss politely and humbly, ensuring all voices are respectfully heard.	17.5	20.6	38.1	16.5	18.6	26.8	45.4	3.16	1.47
4. Students engage respectfully, allowing others to express opinions without interruptions.	28.9	17.5	46.4	14.4	23.7	15.5	39.2	2.79	1.47
5. Students respect authority by following instructors' and coordinators' established rules.	17.5	20.6	38.1	15.5	15.5	30.9	46.4	3.22	1.51
Average	14.4	19.2	33.6	13.4	26.8	26.2	52.2	3.31	1.34

Source: Field Data, (2025)

4.3.3 Students' Active Participation in Carpentry and Joinery.

The study examined the extent to which students actively participated in practical and theoretical sessions in carpentry and joinery. Attendance emerged as a challenge for some students, as 46.4% of respondents disagreed or strongly disagreed that students attended all classes regularly, while 39.2% agreed or strongly agreed and 14.4% were neutral. This suggested that irregular attendance could have hindered consistent learning and practical skill acquisition (Mean = 2.85, SD = 1.36).

Engagement in hands-on tasks was relatively higher. About 53.6% of respondents agreed or strongly agreed that students fully engaged in practical activities, while 30.9% disagreed or strongly disagreed, and 14.4% were neutral. This indicated that most students actively participated in practical sessions by asking questions, volunteering for demonstrations and practicing skills until mastery. This positively influenced their competence in carpentry and joinery tasks (Mean = 3.80, SD = 5.30).

Sharing ideas and asking questions during discussions reflected moderate participation. Approximately 48.5% of respondents agreed or strongly agreed that students contributed ideas and sought clarifications. While 41.2% disagreed or strongly disagreed and 10.3% were neutral. This implied that although many students engaged in interactive learning, some were passive participants, limiting their exposure to peer knowledge and instructors' guidance (Mean = 3.23, SD = 1.46).

Concentration throughout lessons was relatively strong. About 57.8% of respondents agreed or strongly agreed that students remained focused, while 32% disagreed or strongly disagreed, and 10.3% were neutral. This indicated that a majority of students'maintained attention during both theory and practical sessions, enhancing their ability to complete tasks accurately and efficiently (Mean = 3.45, SD = 1.43).

Finally, students' ability to complete assigned tasks actively despite challenges showed moderate consistency. While 46.4% agreed or strongly agreed, 39.2% disagreed or strongly disagreed and 14.4% were neutral. This highlighted that while many students demonstrated perseverance and initiative, some struggled to overcome challenges, which could affect timely completion of practical projects and skill development (Mean = 3.03, SD = 1.48). Overall, the average score suggested that students' participation was moderately high, reflecting an environment where most students engaged actively in learning, though there remained areas requiring encouragement and motivation to achieve full participation (Average Mean = 3.27, SD = 2.21).

Table 6: Students' Participation among Carpentry and Joinery Students.

Where; SD= strongly disagree; D= disagree, N=neutral, A=agree, SA= strongly agree.

Students' Participation	SD (%)	D (%)	SD+D (%)	N (%)	A (%)	SA (%)	A+SA (%)	Mean	Std. Dev.
1. Students attend all classes regularly	20.6	25.8	46.4	14.4	26.8	12.4	39.2	2.85	1.36
2. Students fully engage in hands-on tasks	11.3	19.6	30.9	14.4	37.1	16.5	53.6	3.80	5.30
3. Students share ideas and ask questions during discussions	13.4	27.8	41.2	10.3	19.6	28.9	48.5	3.23	1.46
4. Students stay focused throughout lessons	12.4	19.6	32.0	10.3	25.8	32.0	57.8	3.45	1.43
5. Students complete assigned tasks actively despite challenges	23.7	15.5	39.2	14.4	26.8	19.6	46.4	3.03	1.48
Average	16.7	21.7	39.5	12.7	27.2	21.9	47.1	3.27	2.21

Source; Field data, 2025.

4.4. Practical Skills Acquisition among Carpentry and Joinery Students.

The study explored students' ability to acquire practical skills in carpentry and joinery focusing on accuracy, creativity, safety, tool use, drawing interpretation and project completion. The data indicated that students demonstrated relatively strong competence in producing accurate and precise measurements. About 59.8% of respondents agreed or strongly agreed that students could measure materials correctly. While 33% disagreed or strongly disagreed and 7.2% were neutral. This suggested that most students had developed the fundamental measurement skills required for effective practical work (Mean = 3.47, SD = 1.40).

Creativity and problem-solving in practical tasks showed moderate performance. Approximately 48.5% of respondents agreed or strongly agreed that students could find innovative and effective solutions to workshop challenges, whereas 35% disagreed or strongly disagreed and 16.5% were neutral. This implied that while many students could think critically during tasks, a substantial portion struggled to apply creative solutions, indicating the need for continuous mentoring and exposure to complex practical exercises (Mean = 3.12, SD = 1.43).

The consistent application of safe workshop practices also showed mixed results. About 47.4% of respondents agreed or strongly agreed that students adhered to safety guidelines, while

38.1% disagreed or strongly disagreed and 14.4% were neutral. This indicated that although a significant number of students observed proper safety procedures, a notable proportion neglected essential precautions. potentially, increasing the risk of accidents and affecting practical skill continuity (Mean = 3.03, SD = 1.39).

Effective use of tools and techniques in diverse tasks was moderate but lower compared to other skill indicators. Only 41.2% of respondents agreed or strongly agreed that students could apply various tools effectively. While 46.4% disagreed or strongly disagreed and 12.4% were neutral. This suggested that nearly half of the students had difficulty handling different tools or techniques, which could limit their versatility and adaptability in practical assignments (Mean = 2.95, SD = 1.37).

Finally, attention to drawing details and quality of finished projects reflected a generally positive outcome. About 57.7% of respondents agreed or strongly agreed that students completed projects with precision and high-quality finishes. While 29.9% disagreed or strongly disagreed and 12.4% were neutral. This indicated that many students successfully translated their skills into finished products, demonstrating competence in final outputs, though some students still required further guidance to enhance quality consistently (Mean = 3.40, SD = 1.40). Overall, the average score across all practical skill indicators suggested that students possessed moderate to high practical competence, with particular strengths in measurement and project completion. But with noticeable gaps in tool use, safety adherence and problem-solving (Average Mean = 3.19, SD = 1.40).

Table 7: Practical Skills Acquisition among Carpentry and Joinery Students

Where; SD= strongly disagree, D= disagree, N= neutral, A= agree, SA= strongly agree.

	Practical Skills Acquisition	SD (%)	D (%)	SD+D (%)	N (%)	A (%)	SA (%)	A+SA (%)	Mean	Std. Dev.
1.	Students can produce accurate and precise measurements in carpentry and joinery.	10.3	22.7	33.0	7.2	28.9	30.9	59.8	3.47	1.40
2.	Students can find creative and effective ways to solve practical problems.	20.6	14.4	35.0	16.5	28.9	19.6	48.5	3.12	1.43
3.	Students can consistently apply in workshop safety practices.	20.6	17.5	38.1	14.4	33.0	14.4	47.4	3.03	1.39
4.	Students can use a variety of tools and techniques effectively in different tasks.	16.5	29.9	46.4	12.4	24.7	16.5	41.2	2.95	1.37
5.	Students can complete carpentry and joinery projects, give details & high-quality finish.	14.4	15.5	29.9	12.4	30.9	26.8	57.7	3.40	1.40
Average		16.5	20.0	36.5	12.6	29.3	21.6	50.9	3.19	1.40

Source: Field Data, (2025)

4.5 Relationship between Students' Discipline and the Acquisition of Practical Skills.

This section examined how students' discipline influenced the acquisition of practical carpentry and joinery skills among the participants.

4.5.1 Time Management and Practical Skills Acquisition.

This study examined the relationship between time management and practical skills acquisition among carpentry and joinery students in selected technical institutes in Lango Sub-Region. The Pearson correlation analysis revealed a strong and positive correlation ($r = .689^{**}$, $p < 0.01$), indicating that students who effectively managed their time tended to acquire practical skills at a higher level. The strong correlation suggested that time management was a significant factor influencing students' ability to develop technical competencies in carpentry and joinery, which require precision, focus, and consistent practice over time.

The findings suggested that students who planned their study and practice schedules efficiently were more likely to complete tasks accurately and on time, which enhanced their practical performance. Proper time allocation allowed students to balance theoretical learning with hands-on exercises, ensuring they could practice sufficiently to master essential skills such as accurate measurements, tool handling, and project completion. This observation aligned with previous studies that emphasized the importance of scheduling and disciplined work habits in technical and vocational education.

Moreover, the results implied that students' ability to prioritize tasks and minimize distractions significantly contributed to their competence in carpentry and joinery. Those who avoided procrastination and focused on one task at a time consistently demonstrated better workmanship, reduced errors for higher quality outcomes in their practical assignments. Instructors noted that students with good time management showed confidence during assessments, because repeated well-organized practice reinforced both skill and self-assurance.

4.5.1.1 Qualitative Findings for Time Management and Practical Skills Acquisition.

Theme 1: Punctuality as a Foundation for Discipline and Skill Development.

The principals (A) and deputy principals (B) emphasized that punctuality played a crucial role in instilling discipline among students. Principal A noted that *"students who arrived early for practical sessions developed a routine that not only supported discipline but also created a strong sense of responsibility towards their training."* Similarly, Deputy Principal B explained that *"early attendance ensured that students began work with a clear mind, without the rush and stress of catching up, which improved their focus on practical skills."* Together, they agreed that punctuality was the foundation for cultivating seriousness in vocational education.

Heads of Departments (C) and instructors (D) also highlighted that punctuality enabled students to properly plan and manage their work schedules. Head of Department C shared that *"students who were punctual completed their projects step by step, meeting expected standards in carpentry and joinery."* Instructor D added that *"punctual learners set an example for their peers, helping to build a culture of orderliness within workshops."* These insights demonstrated that punctuality was not only an individual trait but also a collective value for group discipline.

Respondents E and F, both senior instructors, shared that punctuality positively affected the pace of learning. E observed that *"when students reported on time, it allowed for smooth progression of lessons, without unnecessary repetitions for latecomers."* F echoed this by

stating that *"practical projects such as furniture construction required continuity, and punctual attendance ensured that each phase was covered thoroughly."* Their reflections showed that punctuality directly contributed to the logical flow of skills acquisition.

From the perspective of instructors G and H, punctuality also enhanced teamwork in the carpentry workshops. Instructor G explained that *"group projects demanded synchronized participation and punctuality made it possible for students to collaborate effectively."* H supported this by remarking that *"when learners were punctual, team members trusted one another to carry out tasks on schedule, which improved the overall quality of the products."* The emphasis on teamwork revealed how punctuality fostered accountability for assignments.

Respondents I and J underscored the motivational effects of punctuality. Instructor I mentioned that *"students who were punctual often displayed a positive attitude towards their training, inspiring others to do the same."* Instructor J further explained that *"punctuality became a marker of commitment and committed students showed better craftsmanship in complex projects."* These reflections illustrated how punctuality acted as a motivator for individual and group performance.

Finally, respondents K and L described how punctuality reinforced long-term employability skills. Instructor K observed that *"employers valued punctual graduates because they reflected reliability and discipline."* Similarly, Instructor L emphasized that *"students who learned the habit of punctuality carried it beyond school, making them competitive in the job market."* These perspectives revealed that punctuality in technical institutes was not only about meeting classroom schedules but also about preparing students for professional life.

Theme 2: Consequences of Poor Punctuality and Time Management

Respondents A and B acknowledged that poor punctuality had disruptive consequences for practical sessions. Principal A reported that *"students who frequently arrived late missed out on crucial instructions, forcing teachers to repeat explanations and slowing down the pace of the entire class."* Deputy Principal B added that *"lateness created disorganization and wasted valuable time that could have been used for practical demonstrations."* Both agreed that poor punctuality strained the training schedule.

Heads of Department C and instructor D also noted that poor time management led to incomplete tasks. C stated that *"latecomers often failed to complete their joinery projects within the allocated time, leaving tasks half-done or of poor quality."* D added that *"time*

mismanagement caused panic among students, and in their rush to finish, they compromised accuracy and safety standards." These observations highlighted that poor punctuality undermined both productivity and skill mastery.

Respondents E and F explained that lateness affected the morale of other students. Instructor E said, *"serious learners often felt demoralized when latecomers interrupted the class, especially during demonstrations."* F added that *"lateness created resentment in group projects because punctual students felt they were carrying the burden of others."* Their views indicated that lateness was not only an individual weakness but also a source of tension to practical learning.

From the perspective of G and H, poor punctuality also affected assessment outcomes. Instructor G explained that *"students who were always late struggled with continuous assessment, as they could not demonstrate consistent progress."* H remarked that *"teachers found it difficult to award marks fairly when some students repeatedly missed key project milestones."* This revealed, time management had a direct credibility of assessment processes.

Instructors I and J described how lateness disrupted the acquisition of safety practices. Instructor I said, *"students who arrived late often skipped safety briefings, exposing themselves and others to unnecessary risks in the workshop."* Instructor J supported this by explaining that *"time mismanagement made some students rush through projects without proper safety precautions."* This reflected how lateness endangered practical learning and workshop safety.

Finally, instructors K and L warned that poor punctuality affected employability. Instructor K explained that *"graduates who were known for lateness struggled to secure jobs in competitive industries where time management was critical."* Instructor L emphasized that *"employers viewed lateness as a sign of unreliability, reducing students' chances of being trusted with important contracts."* Their reflections confirmed that poor punctuality had consequences that extended beyond the classroom into the professional world.

Theme 3: Measures for Promoting Punctuality and Time Management.

Principals (A) and deputy principals (B) shared that their institutes had adopted deliberate strategies to encourage punctuality. Principal A explained that *"we emphasized punctuality during orientation and regularly reminded students about its importance in building professional discipline."* Deputy Principal B added that *"we introduced strict attendance registers, where latecomers were marked and later counseled on the importance of reporting*

early." These measures they argued were designed to help students form habits aligned with workplace standards.

Heads of Department C and instructor D also explained that they incorporated practical penalties and rewards to encourage punctuality. C noted that *"students who were always on time were given leadership roles in workshops, while persistent latecomers were assigned extra tasks."* D further stated that *"at the end of the term, punctual students often received recognition in staff-student meetings, which motivated others to follow their example."* This showed that both incentives and sanctions were used to shape behaviour.

Respondents E and F described counseling and mentorship as key interventions. Instructor E explained that *"some students arrived late due to personal challenges such as long travel distances, so we offered counseling to help them plan better."* F added that *"mentorship programs encouraged older students to act as role models for younger ones by consistently reporting early."* These approaches reflected how the institutes sought to address lateness in a supportive rather than punitive manner.

Instructors G and H emphasized the role of timetabling and structured planning. Instructor G stated that *"we adjusted practical timetables to begin slightly later in the morning to accommodate students who came from far distances."* H observed that *"structured planning of activities with clear deadlines motivated students to take time management more seriously."* Both highlighted the importance of aligning institutional schedules with realities faced by learners.

Respondents I and J explained that sensitization campaigns were also employed. Instructor I mentioned that *"students were frequently reminded through workshops and assemblies that punctuality was not only a school requirement but a professional expectation in the job market."* J added that *"we invited employers to talk to students, and they emphasized how lateness could cost contracts in real industries."* This demonstrated that external voices reinforced the seriousness of punctuality.

Finally, instructors K and L pointed out that regular monitoring helped sustain punctuality. Instructor K stated that *"we closely monitored attendance patterns and engaged with offenders individually to understand their challenges."* L echoed that *"continuous supervision by both instructors and prefects ensured that punctuality became part of the learning culture."* These measures showed that consistency and follow-up were vital in improving students' time management.

Theme 4: Link between Punctuality and Skills Acquisition.

Principals (A) and deputy principals (B) strongly agreed that punctuality directly influenced the quality of skills acquired. Principal A explained that *"students who arrived on time did not miss critical demonstrations, which meant they grasped techniques more effectively than those who came late."* Deputy Principal B reinforced this view by saying that *"punctual students had adequate time to practice, repeat and refine their work, leading to mastery of practical skills."* Both highlighted that punctuality gave students, a practical skill learning advantage.

Heads of Department C and instructor D also reflected on this link. C noted that *"students who managed their time well were able to progress systematically from simple tasks such as cutting wood to more complex joinery tasks without unnecessary delays."* D added that *"good time managers developed accuracy and precision since they had more time to concentrate on measurements and finishing details."* Their insights showed that punctuality enhanced the depth and quality of craftsmanship.

Respondents E and F emphasized that punctuality shaped confidence and self-efficacy. Instructor E explained that *"students who consistently attended on time completed their projects on schedule, which boosted their confidence in handling future tasks."* F added that *"punctual learners were less anxious because they had sufficient time to ask questions and practice under close supervision."* This demonstrated that punctuality nurtured confidence, which was critical in technical and vocational learning.

Instructors G and H revealed how punctuality supported innovation and creativity. Instructor G said that *"students who came early had extra time to explore alternative technical drawing designs and experiment with new techniques."* H pointed out that *"punctuality allowed learners to go beyond the minimum requirements, leading to more creative and marketable products."* Their views indicated that punctuality not only improved routine tasks but also inspired innovation in carpentry and joinery skills.

Respondents I and J described how punctuality contributed to long-term knowledge retention. Instructor I stated that *"students who followed sessions from the start developed better retention of procedures, since they did not miss key instructions."* J explained that *"early attendance meant they engaged more deeply with instructors, which reinforced their understanding of practical concepts."* Their accounts confirmed that punctuality supported learning consistency and long-term knowledge acquisition.

Finally, instructors K and L highlighted the professional readiness that resulted from punctual learning habits. Instructor K explained that *"graduates who were trained to be punctual were more reliable in industrial placements, where deadlines mattered."* Instructor L concluded that *"punctual students became more employable because they demonstrated not only technical skills but also professional discipline."* These reflections reinforced the strong connection between punctuality, skill mastery and employability.

4.5.2 Respectful Interactions and Practical Skills Acquisition.

The study also explored the relationship between students' respectful interactions and practical skills acquisition. The Pearson correlation Table 8, indicated a very strong and positive relationship ($r = .755^{**}$, $p < 0.01$), showing that students who maintained respectful communication with peers and instructors acquired practical skills more effectively. This strong relationship suggested that interpersonal behaviour played a crucial role in the learning environment, facilitating collaboration, guidance and supportive feedback among students.

The results suggested that respectful interactions encouraged cooperation and teamwork, which were essential in carpentry and joinery workshops. Students who communicated courteously were more likely to ask for assistance, share techniques and provide constructive feedback, creating an environment where everyone could learn from each other's experiences. This dynamic not only enhanced individual skill acquisition but also promoted collective learning, allowing students to tackle complex tasks more efficiently.

4.5.2.1 Qualitative Findings on Respectful Interactions and Practical Skills Acquisition.

Theme 1: Respect as a Foundation for a Positive Learning Atmosphere.

Principals (A) and deputy principals (B) emphasized that respectful behaviour created a healthy learning environment. Principal A noted that *"most of our students demonstrated a high level of respect, both towards their instructors and among themselves. They greeted us politely, listened attentively during lessons and followed instructions without argument."* Deputy Principal B added that *"this mutual respect created an atmosphere where students were not afraid to ask questions or seek clarification and this boosted their confidence during practical sessions."* Both agreed that respect was a vital condition for effective teaching and learning.

Heads of Department C and instructor D confirmed that respect reduced conflicts and encouraged cooperation. Head of Department C explained that *"respectful trainees treated their peers with dignity and this minimized quarrels or disruptions in the workshop."* Instructor D

added that *"when learners valued one another's contributions, they worked more harmoniously in group projects, producing better outcomes."* Their observations showed how respect promoted smooth relationships and improved teamwork in skill acquisition.

Respondents E and F reflected that respect for instructors made practical training more effective. Instructor E observed that *"when students respected authority, they followed workshop safety rules without resistance, which reduced accidents."* Instructor F added that *"respectful learners paid close attention to demonstrations and this accuracy improved the quality of their finished work."* Their perspectives revealed that respect was central to attentiveness and precision in carpentry and joinery.

Instructors G and H also highlighted that respect improved communication during training. Instructor G noted that *"students who behaved respectfully asked questions in a polite manner, and this made instructors more willing to give detailed guidance."* H remarked that *"respectful behaviour created openness, so learners freely shared challenges and sought help without fear of being mocked."* These insights suggested that respect encouraged dialogue and mutual trust between instructors and students.

Respondents I and J emphasized that respect fostered motivation and commitment. Instructor I explained that *"when learners showed respect, instructors felt valued and were more motivated to dedicate extra time to mentoring."* Instructor J added that *"respectful behaviour encouraged students to take their work seriously, because they did not want to disappoint instructors or peers."* Their reflections showed how respect reinforced skills development.

Finally, instructors K and L stressed that respect went beyond the classroom. Instructor K said that *"students who practiced respectful behaviour in training were more likely to carry these values into the workplace, making them employable."* Instructor L added that *"employers preferred graduates who displayed discipline and respect, because they were easier to work with and more reliable."* Their views revealed that respectful behaviour built not only academic skills but also professional character.

Theme 2: Consequences of Disrespect in Practical Training.

Respondents A and B acknowledged that disrespectful behaviour caused significant disruption in training. Principal A noted that *"a few students sometimes showed disregard for instructions, which wasted time and slowed down workshop activities."* Deputy Principal B added that

"disrespectful behaviour, such as answering back rudely, discouraged instructors and created unnecessary tension during lessons." Both confirmed that disrespect was a barrier to learning.

Heads of Department C and instructor D explained that disrespect led to poor teamwork. C stated that *"when students dismissed the ideas of their peers, group projects collapsed because members could not coordinate effectively."* D supported this view, saying that *"some learners failed to listen to others and this resulted in mistakes during joint tasks such as furniture assembly."* Their reflections highlighted how disrespect weakened collaborative learning.

Respondents E and F observed that disrespect directly reduced concentration and skill mastery. Instructor E explained that *"students who mocked or interrupted others created a noisy environment and this interfered with concentration."* F added that *"when learners refused to follow workshop rules and procedures, they wasted time correcting mistakes than learn new skills."* Their comments showed that disrespect created inefficiency in skills development.

Instructors G and H also shared that disrespect undermined discipline and safety. Instructor G stated that *"disrespectful learners ignored safety briefings and this put both themselves and others at risk in the workshop."* H added that *"failure to respect use of workshop tools by mishandling them led to breakages and delays in completing projects."* Their perspectives revealed that disrespect endangered both discipline and practical skill outcomes.

Respondents I and J emphasized the emotional impact of disrespect. Instructor I explained that *"instructors often felt demoralized when students failed to show courtesy, which reduced their enthusiasm to teach."* J added that *"disrespectful students created a negative energy in class, and others became reluctant to participate actively."* These reflections indicated that disrespect weakened instructors' morale and discouraged peer learning.

Finally, instructors K and L stressed that disrespect hindered employability. Instructor K noted that *"graduates who had a reputation for arrogance or lack of respect struggled to fit into professional teams."* Instructor L added that *"employers rejected trainees who disrespected tools or authority, as such attitudes were considered unprofessional."* Their remarks showed that disrespect had long-term consequences beyond skills training.

Theme 3: Strategies for Encouraging Respectful Behaviour.

Principals (A) and deputy principals (B) described the institutional efforts to promote respect. Principal A explained that *"orientation sessions emphasized values such as respect, discipline and teamwork which students were expected to uphold."* Deputy Principal B added that *"rules*

and regulations of conduct were clearly displayed in workshops, reminding students daily about acceptable behaviour." Both noted that these strategies set a respectful tone for learning.

Heads of Department C and instructor D explained that they used role modeling as a method of teaching respect. C stated that *"we demonstrated respect by listening to students' concerns attentively, so they could learn to treat others the same way."* D added that *"instructors avoided shouting or humiliating students, instead showing how respectful communication worked."* Their views suggested that modeling respectful behaviour encouraged students to emulate it.

Respondents E and F highlighted counseling and mentorship as useful approaches. Instructor E explained that *"students who struggled with discipline were guided through counseling sessions, which helped them reflect on their behaviour."* F added that *"mentorship programs paired students with responsible peers who set examples of respect and cooperation."* These measures helped trainees to internalize respect.

Instructors G and H emphasized the use of recognition and rewards. Instructor G noted that *"students who consistently showed respectful behaviour were recognized during assemblies or class meetings."* H added that *"small incentives, such as being chosen as group leaders, motivated others to behave respectfully."* These accounts showed how recognition promoted positive attitudes.

Respondents I and J also explained that consistent enforcement of rules and regulations was important. Instructor I mentioned that *"when disrespect occurred, disciplinary measures such as warnings or extra assignments were applied to discourage repetition."* J added that *"consistency in handling disrespect helped trainees understand that such behaviour was unacceptable."* Their comments showed the importance of fairness and accountability.

Finally, instructors K and L pointed out that respect was promoted through collaboration with parents and guardians. Instructor K stated that *"parents were informed about their children's behaviour, and this encouraged them to reinforce discipline at home."* L added that *"joint meetings between instructors and parents helped to align expectations about respectful conduct."* Their views highlighted the role of community in nurturing respect.

Theme 4: Link between Respect on practical Skill development.

Principals (A) and deputy principals (B) strongly agreed that respectful behaviour improved skill development. Principal A explained that *"when students respected instructors, they listened carefully to demonstrations and mastered techniques faster."* Deputy Principal B added

that *"respect created a calm environment where students could practice without distractions, leading to better craftsmanship."* Both highlighted that respect supported effective learning.

Heads of Department C and instructor D reflected on the role of respect in teamwork. C said that *"respectful trainees valued the contributions of their peers, which allowed them to work smoothly on group projects."* D added that *"this cooperation improved the speed and quality of joint products, such as large furniture pieces."* Their reflections showed that respect enhanced collaborative skills.

Respondents E and F emphasized that respect encouraged openness to feedback. Instructor E explained that *"students who behaved respectfully accepted corrections without argument, which helped them improve their skills."* F added that *"such trainees often sought extra guidance, showing eagerness to perfect their work."* This demonstrated how respect accelerated skill acquisition through feedback.

Instructors G and H revealed that respect nurtured creativity and innovation. Instructor G observed that *"students who respected their peers' ideas were more open to trying new techniques suggested during group discussions."* H added that *"respectful interaction encouraged learners to share creative solutions without fear of criticism."* Their views suggested that respect fostered innovation in carpentry training.

Respondents I and J emphasized the link between respect and confidence. Instructor I explained that *"a respectful atmosphere allowed shy students to participate actively, which strengthened their hands-on practice."* J added that *"students-built confidence in their abilities because they felt valued by both instructors and peers."* Their accounts revealed how respect- built trainees' self-esteem and practical competence.

Finally, instructors K and L highlighted that respect prepared students for professional work. Instructor K stated that *"respectful trainees easily adapted to workplace culture, where courtesy and teamwork were highly valued."* L concluded that *"graduates who learned respect in training were more employable because they combined technical skills with interpersonal discipline."* These reflections confirmed that respect was central to long-term career success.

4.5.3 Students' Participation and Practical Skills competencies.

The impact of students participation on practical skills competencies was also investigated. The analysis revealed a strong and positive correlation ($r = .682^{**}$, $p < 0.01$), indicating that students who actively engaged in classroom and workshop activities were more proficient in

practical carpentry and joinery skills. The correlation suggested that active involvement in learning activities played a significant role in reinforcing practical competencies, providing students with opportunities to apply theoretical knowledge in real-world tasks.

4.5.3.1 Qualitative Findings on Student Participation on Practical Skills competencies.

Theme 1: Importance of Safety Practices in Practical Training.

Principals (A) and deputy principals (B) emphasized that safety practices were fundamental in practical carpentry and joinery training. Principal A explained that *"students who strictly followed safety rules experienced fewer accidents, which allowed lessons to progress smoothly and uninterrupted."* Deputy Principal B added that *"adherence to safety protocols cultivated responsibility and awareness, ensuring that learners respected both tools use and their peers."* Their observations confirmed that safety practices formed the foundation of an effective learning environment.

Heads of Department C and instructor D also highlighted the role of safety in skill acquisition. Head of Department C stated that *"students who consistently wore protective gear and followed workshop procedures mastered techniques more effectively because they could focus on the task rather than worrying about injury."* Instructor D added that *"those who ignored safety measures often slowed the class, since accidents or mistakes required intervention and delayed practice sessions."* These reflections demonstrated that safety influenced learning efficiency.

Respondents E and F observed that safety practices encouraged discipline and attentiveness. Instructor E explained that *"students who observed safety instructions handle tools carefully, follow steps methodically and remain alert during demonstrations."* F added that *"safe behaviour reinforced a culture of attentiveness, where students respected instructions and learning environment."* This indicated that safety and discipline were closely linked in training.

Instructors G and H emphasized the importance of safety for fostering confidence. G noted that *"students who understood safety protocols felt more confident when operating machinery or sharp tools."* H added that *"confidence stemming from safety awareness enabled learners to practice more intensively, leading to better skill development."* Their accounts highlighted how safety awareness reduced fear and encouraged focused practice.

Respondents I and J highlighted that safety practices also protected peer learning. Instructor I said that *"students who followed safety rules not only avoided personal injuries but also minimized risks to their classmates."* J added that *"collaborative tasks were smoother and more*

productive when everyone adhered to safety guidelines." These insights showed that safety practices enhanced collective learning and cooperation.

Finally, instructors K and L emphasized the long-term professional value of safety adherence. Instructor K stated that *"graduates who developed a safety-conscious mindset were better prepared for industrial environments where compliance with safety standards was mandatory."* L added that *"safety habits learned in training became part of professional discipline, increasing employability and reliability."* Their observations confirmed that safety practices had implications beyond school.

Theme 2: Common Safety Challenges in Practical Sessions.

Principals (A) and deputy principals (B) noted that some students struggled with safety compliance. Principal A explained that *"a few students neglected protective equipment or mishandled sharp tools, which led to minor injuries and disrupted lessons."* Deputy Principal B added that *"despite repeated reminders, some learners treated safety rules lightly, believing accidents would not happen to them."* Their accounts indicated that non-compliance posed risks to both learning and trainees.

Heads of Department C and instructor D also highlighted human error as a major challenge. C said that *"students occasionally rushed tasks, ignoring precautions, which caused slips, cuts, or damaged materials."* D added that *"inexperienced learners underestimated the hazards of machinery, creating dangerous situations for themselves and others."* These reflections demonstrated that lack of awareness and haste contributed to safety issues.

Respondents E and F emphasized behavioral and attitudinal barriers. Instructor E explained that *"some students were overconfident and thought safety protocols were unnecessary, which increased accident risks."* F added that *"others showed impatience and skipped instructions, believing that observing all procedures slowed them down."* Their insights suggested that attitudes, not just knowledge, affected safety adherence.

Instructors G and H noted that overcrowding and resource limitations created safety risks. G stated that *"workshops with too many students or insufficient tools forced trainees to share equipment, sometimes leading to accidental injuries."* H added that *"limited protective gear meant that not all students could follow safety practices consistently, creating unequal compliance."* These observations indicated that structural constraints influenced the effectiveness of safety practices.

Respondents I and J highlighted supervision challenges. Instructor I explained that *"in large groups, it was difficult for instructors to monitor everyone constantly, which allowed some unsafe behaviour to go unnoticed."* J added that *"students sometimes imitated peers' unsafe habits, thinking it was acceptable if instructors did not intervene immediately."* This showed that supervision intensity played a role in maintaining safety standards.

Finally, instructors K and L pointed out that fatigue and personal distractions affected safety. K noted that *"students who were tired or preoccupied were less attentive to precautions, leading to mistakes."* L added that *"personal challenges such as stress or external responsibilities made some trainees careless with safety procedures."* These reflections highlighted those external and internal factors influenced compliance.

Theme 3: Strategies for Promoting Safety in Practical Work.

Principals (A) and deputy principals (B) described institutional measures for ensuring safety. Principal A explained that *"we conducted orientation sessions emphasizing the importance of personal protective equipment, safe handling of tools, and workshop discipline."* Deputy Principal B added that *"safety rules were clearly displayed and reinforced through regular reminders, creating a consistent safety culture."* Their observations confirmed that clear communication was key to promoting safe behaviour.

Heads of Department C and instructor D emphasized practical demonstrations of safety. C stated that *"we modeled proper handling of machinery and protective gear so that students could imitate correct techniques."* D added that *"real-time guidance during tasks helped students internalize safety practices while performing their work."* These measures ensured that safety was learned by doing, not just by instruction.

Respondents E and F highlighted supervision and monitoring. Instructor E explained that *"instructors rotated among groups to observe compliance and provide immediate corrections."* F added that *"this constant supervision prevented unsafe behaviour from becoming habits."* Their accounts suggested that vigilance was critical for reinforcing safety practices.

Instructors G and H described the use of disciplinary measures and positive reinforcement. G noted that *"students who neglected safety received warnings or extra assignments, which discouraged careless behaviour."* H added that *"those who consistently followed safety rules were praised, which motivated others to emulate them."* These strategies combined accountability with encouragement.

Respondents I and J emphasized training and refresher sessions. Instructor I explained that *"periodic workshops focused on safe tool handling and emergency response helped students stay aware of potential hazards."* J added that *"repetition of safety lessons strengthened retention and created habitual compliance."* Their insights demonstrated the importance of ongoing technical education in maintaining a safe learning environment.

Finally, instructors K and L highlighted collaboration with peers and role modeling. K stated that *"experienced students guided juniors on safe practices, creating a peer-supported culture of safety."* L added that *"students observed one another and corrected unsafe behaviour, reinforcing collective responsibility."* These reflections revealed that safety was embedded not only in rules and regulations, but in social practice.

Theme 4: Link between Safety Practices and Skill Acquisition.

Principals (A) and deputy principals (B) emphasized that safe practices enhanced learning outcomes. Principal A explained that *"students who adhered to safety rules could concentrate on skill development without fear of injury."* Deputy Principal B added that *"this focus allowed them to refine techniques, leading to higher-quality workmanship."* Both highlighted that safety facilitated uninterrupted skills acquisition.

Heads of Department C and instructor D confirmed that safety promoted confidence. C stated that *"students who trusted their safety knowledge were willing to try advanced techniques without hesitation."* D added that *"confidence in handling tools safely improved their precision and efficiency in tasks."* Their observations showed that safety and competence were interrelated.

Respondents E and F emphasized teamwork and collaboration. Instructor E explained that *"safe behaviour ensured that group projects proceeded smoothly, with students respecting one another's space and timing."* F added that *"adherence to safety protocols allowed all members to participate fully without accidents disrupting progress."* This indicated that safety practices supported collective skill-building.

Table 8: Pearson Correlation Results for Students' Discipline and Practical Skills Acquisition.

Variables	(1)	(2)	(3)	Practical Skills Acquisition
1. Time Management	1	.695**	.716**	.689**
2. Respectful Interactions	.695**	1	.712**	.755**

3. Student Participation	.716**	.712**	1	.682**
Practical Skills Acquisition	.689**	.755**	.682**	1
N	97	97	97	97

Note. **Correlation is significant at the 0.01 level (2-tailed).

4.6 Hypotheses testing on Students' Discipline and Practical Skills Acquisition.

The analysis revealed that there was a strong and positive relationship between students' discipline and practical skills acquisition among carpentry and joinery students in technical institutes within the Lango Sub-Region. As seen in Table 9 below, the Pearson correlation coefficient ($r = .702^{**}$, $p < 0.01$) confirmed that students with higher levels of discipline acquired practical skills more effectively.

The coefficient of determination ($r^2 = 49.3\%$) further indicated that almost half of the variation in practical skills acquisition was explained by students' discipline. Since the p-value was less than 0.01, the null hypothesis (H_0) was rejected, while the alternative hypothesis (H_1) was accepted, demonstrating that discipline significantly influenced practical skill development.

Table 9: Hypothesis Testing Results on Students' Discipline and Practical Skills Acquisition

Hypothesis	N	r-value	r^2 (%)	Sig. (p-value)	Decision on H_0	Accepted Hypothesis	Conclusion
H_0: There was no significant relationship between students' discipline and practical skills acquisition. H_1: There was a significant positive relationship between students' discipline and practical skills acquisition.	97	.702**	49.3%	$p < 0.01$	Rejected	H_1 Accepted	Students' discipline has a significant positive influence on the acquisition of practical carpentry and joinery skills.

Note: N = 97, r = Pearson correlation coefficient, r^2 = coefficient of determination, $p < 0.01$ (2-tailed).

4.6.1 Regression Analysis on Students' Discipline and Practical Skills Acquisition

The study conducted a multiple regression analysis to determine the extent to which time management, respectful interactions, and student participation predicted practical skills acquisition among carpentry and joinery students. The model summary (Table 9) showed a correlation coefficient (R) of 0.754, indicating a strong positive relationship between the predictors and practical skills acquisition. The R^2 value of 0.568 suggested that approximately 56.8% of the variance in practical skills acquisition was explained by the combined effects of the three independent variables, demonstrating a substantial predictive power of the model. The adjusted R^2 of 0.554 accounted for the number of predictors, confirming the model's reliability and the standard error of the estimate (2.1746) indicated reasonable precision in predicting practical skills outcomes.

The regression coefficients (Table 10) provided insight into the individual contributions of each predictor. Time management had a positive and statistically significant effect ($B = 0.303$, $\beta = 0.300$, $t = 3.276$, $p = 0.001$), indicating that students who managed their time effectively were more likely to enhance their practical skills. Respectful interactions also had a strong positive and significant impact ($B = 0.593$, $\beta = 0.530$, $t = 5.577$, $p = 0.000$), highlighting the critical role of cooperative and respectful behaviour in supporting skill acquisition. Conversely, students' participation had a negligible and non-significant effect ($B = -0.006$, $\beta = -0.013$, $t = -0.158$, $p = 0.875$), suggesting that, in this study, active participation alone did not significantly influence the practical skills outcomes when the other factors were not considered.

Overall, the regression results underscored the importance of both time management and respectful interactions in promoting practical skills acquisition. While student participation is often emphasized in pedagogical theory, these findings suggested that without structured time management and a positive interpersonal environment, participation alone may not translate into measurable improvements in practical competencies. The results imply that technical institutes should prioritize interventions that foster effective time management and respectful collaboration among students, ensuring that learning environments are structured and conducive to acquiring hands-on skills efficiently.

Table 10: Regression model summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	0.754[a]	0.568	0.554	2.1746

Table 11: Regression Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t
		B	Std. Error	Beta	
1	(Constant)	9.414	1.130		8.328
	Time Management	0.303	0.092	0.300	3.276
	Respectful Interactions	0.593	0.106	0.530	5.577
	Students' Participation	-0.006	0.041	-0.013	-0.158

a. **Dependent Variable**: Practical Skills Acquisition

CHAPTER FIVE

Discussions, Conclusion and Recommendation.

5.0 Introduction

This chapter presents a comprehensive discussion of the study findings comparing and contrasting with findings from other researchers in the same field. The chapter further provides conclusions drawn from the analyses and offers practical recommendations for enhancing vocational training outcomes. Finally, it identifies areas for future research to strengthen technical education interventions.

5.1 Discussions

5.1.1 Relationship between Time Management and Practical Skills Acquisition

The findings of this study revealed a strong positive relationship between time management and practical skills acquisition among carpentry and joinery students. Students who managed their time effectively demonstrated higher levels of competence in carrying out hands-on tasks, as they could consistently follow workshop routines without interruptions. Punctual attendance cultivated discipline and responsibility, ensuring that learners engaged with instructions and practical activities in an orderly manner. This aligns with Fitts and Posner's (1967) Skills Acquisition Theory, which emphasizes that structured practice and consistency are essential

for learners to progress from the cognitive stage of understanding tasks, through the associative stage of refining skills, to the autonomous stage where skills become automatic.

Supporting this, Jovanovic et al. (2019) observed that structured time management and punctuality enhanced engagement and improved learning outcomes in technical education. However, Smith and Brown (2021) argued that punctuality alone may not be sufficient to improve skills acquisition when curricula lack adequate resources or instructional guidance. This suggests that while time management created the conditions for learning, the quality of institutional support determined the depth of mastery. In the context of Fitts and Posner's theory, this highlights that learners require not only structured time but also sufficient instructional input to transition effectively across the three stages of skill acquisition.

The study also established that poor time management disrupted the flow of learning and reduced the quality of work produced. Students who frequently arrived late missed crucial instructions, which caused delays, repetition and inefficiency during workshop sessions. This finding resonates with Vadivel et al. (2023), who reported that inadequate time management negatively affects productivity and skill outcomes in technical and vocational settings. On the other hand, Chen and Wang (2020) argued that self-directed learners could sometimes compensate for lateness by practicing independently, suggesting that personal initiative can buffer against lapses in punctuality. From the perspective of Fitts and Posner's model, inconsistent attendance prevents trainees from consolidating skills in the associative stage, making it harder to reach full competence.

Moreover, punctuality was shown to positively influence student motivation and peer behaviour. Students who arrived on time inspired others, fostering a culture of accountability, teamwork and mutual responsibility within workshops. Gelles et al. (2020) supported this view, noting that social norms and student attitudes toward punctuality significantly shape technical and vocational learning engagement. Conversely, Patel and Kumar (2018) observed that in highly competitive workshop settings, the motivational influence of punctuality was sometimes overshadowed by task complexity and instructors' control. This reflects that while time management contributes to skill acquisition, broader environmental factors shape how far trainees advance along the stages outlined in Fitts and Posner's theory.

Qualitative findings further showed that effective time management improved creativity, confidence and innovation. Punctual students often had more time to refine their techniques,

experiment with new approaches and actively engage in group projects. Kigenyi (2020) emphasized that structured schedules enable trainees to concentrate on skill development and build higher-order competencies supporting this outcome. In contrast, Lopez and Martinez (2019) argued that creativity in practical learning is more strongly influenced by prior experience and intrinsic interest than by punctuality. Within Fitts and Posner's framework, this indicates that structured practice enables refinement of skills, intrinsic motivation remains vital for advancing to autonomous stage where learners exhibit creativity and confidence.

Additionally, the study found that punctuality strengthened students' confidence and ability to engage in reflective practice. By managing their time well, trainees had the opportunity to receive timely feedback from instructors and apply corrections in subsequent tasks. This repeated cycle of practice and feedback corresponds with the associative stage of Fitts and Posner's theory, where learners refine performance through deliberate repetition. In this sense, punctuality functioned as a foundation for building consistency and reinforcing iterative learning, which are crucial in technical disciplines like carpentry and joinery.

Institutional interventions also played a vital role in reinforcing time management behaviour. Mentorship, attendance monitoring and incentive systems provided external motivation for punctuality and improved practical skills acquisition. Ajzen's (1991) Theory of Planned Behaviour complements this finding by suggesting that attitudes, perceived behavioral control and social norms shape intentional actions. However, Osei and Boateng (2022) cautioned that strict monitoring could create anxiety and reduce student autonomy, which may hinder performance. Within the framework of Fitts and Posner's Skills Acquisition Theory, this demonstrates that external structures must be supportive rather than rigid to sustain trainees' progress from conscious effort to automatic skills application.

Finally, the findings emphasized that time management was not only about punctuality but also about building professional habits necessary for long-term career success. Disciplined time use allowed students to approach learning systematically, build resilience and establish a culture of accountability that extended beyond workshop sessions. In line with Fitts and Posner's (1967) Skills Acquisition Theory, effective time management ensured that trainees engaged in structured, repetitive practice that gradually transformed basic abilities into professional expertise. At the same time, personal initiative, institutional support and contextual factors all interacted to shape the depth and quality of skill acquisition among technical students.

5.1.2 The influence of students Respectful Interactions on Practical Skills development.

The findings of this study indicated a very strong positive influence between respectful interactions and practical skills development. Suggested that students who maintained courteous communication with both peers and instructors developed skills more effectively. Observations revealed that respect fostered a positive learning atmosphere, which encouraged attentiveness, engagement and confidence during practical sessions. This was consistent with Amemiya et al. (2020), who found that respectful behaviour and structured codes of conduct enhanced learning environments by promoting cooperation and focus. In contrast, Bintey (2019) argued that the effects of respectful conduct could be limited in contexts where students faced socio-economic or cultural challenges, suggesting that interpersonal behaviour alone was not sufficient to guarantee improved skill acquisition.

Respectful interactions were also shown to reduce conflicts and strengthen teamwork among students. Trainees who treated one another with dignity collaborated more effectively on group projects, producing higher-quality outcomes and achieving smoother workflow. Hein (2020) similarly highlighted that respect among students enhanced peer support and collective engagement, which contributed to better performance in practical tasks. However, Kimenyi and Njoroge (2021) noted that in some technical institutions, hierarchical power dynamics or instructor favoritism diminished the positive impact of respectful interactions, demonstrating that institutional culture moderated the effectiveness of interpersonal behaviour.

Moreover, respect played a critical role in enhancing attentiveness to instructions and adherence to safety protocols. Students who demonstrated respect for their instructors were more likely to follow workshop rules and participate carefully in demonstrations, which improved the accuracy and quality of their practical projects. Supporting this, Liu (2022) found that respectful student–teacher relationships significantly improved attention and learning outcomes in technical training. On the other hand, Patel and Singh (2020) argued that even respectful Trainees struggled with mastering practical skills when instructional methods were unclear or overly complex, indicating that respectful behaviour complemented but did not replace effective teaching methods.

The study further revealed that respect nurtured motivation, openness to feedback and creativity among learners. Students who valued the contributions of peers and instructors were more willing to explore new techniques and implement constructive suggestions, which enhanced their innovation and hands-on competence. This finding was consistent with Gelles

et al. (2020), who emphasized that respectful learning environments empowered students to participate fully and confidently, thereby advancing skills acquisition. Conversely, Osei and Boateng (2022) cautioned that overemphasis on politeness sometimes suppressed critical questioning and independent problem-solving, suggesting that respect needed to be balanced with opportunities for engagement and intellectual challenge.

Finally, respectful interactions were linked to long-term employability and professional readiness. Students who learned to communicate courteously and collaborate effectively in workshops were better prepared for workplace environments where teamwork, reliability, and respect for professional norms were highly valued. Ajzen's (1991) Theory of Planned Behaviour supported this outcome by asserting that positive social norms and behavioral intentions foster professional competencies beyond classroom settings. Nevertheless, Lopez and Martinez (2019) observed that although respectful behaviour improved interpersonal relations, technical skill proficiency was equally crucial and without practical competence, employability outcomes remained limited. This indicated that respectful interactions and technical mastery complemented one another as key ingredients for career success.

5.1.3 The impact of Students Participation on Practical Skills competencies.

The findings of this study demonstrated a strong positive impact between student participation and practical skills competencies, indicating that students who actively engaged in both classroom and workshop activities developed carpentry and joinery competencies more effectively. Active participation allowed trainees to apply theoretical knowledge to real-world tasks, thereby enhancing their technical proficiency. This aligns with Fitts and Posner's (1967) Skills Acquisition Theory, which emphasizes that repeated practice and engagement are critical for progressing from the cognitive to the autonomous stage of skill mastery. Supporting this, Pratiwi et al. (2023) emphasized that student engagement serves as a key indicator of self-regulation and adherence to institutional norms, fostering effective learning in practical settings. Conversely, Duff (2019) argued that participation is heavily influenced by socio-cultural contexts, and in some cases, students may engage superficially or performatively, which may not translate into meaningful skill development. This underscores the importance of the quality and depth of engagement in practical learning.

Participation was also closely linked to safety awareness and responsible behaviour in the workshop. Students who actively participated were more likely to follow safety protocols, wear protective equipment, and remain attentive to demonstrations, which minimized accidents and

facilitated uninterrupted learning. Lewis et al. (2020) supported this observation, showing that active engagement reflects alignment with institutional rules, promoting both discipline and practical skill mastery. However, Nyamwamu and Otieno (2021) highlighted that even participative students sometimes neglected safety procedures due to overconfidence or peer pressure, indicating that active involvement alone does not guarantee safe practices. This finding reflects that supervision and reinforcement of safety remain critical components of practical skill acquisition.

Moreover, student participation encouraged collaboration and teamwork in group projects. Learners who contributed consistently respected peers' space, shared responsibilities, and supported one another, leading to higher-quality outcomes and efficient workflow. Singh and Kumar (2022) noted that cooperative participation enhances skill acquisition by creating opportunities for peer learning and collective problem-solving. Conversely, Mensah (2020) argued that participation sometimes foster dependency, where less confident students rely on more capable peers to complete tasks, thereby limiting individual skill development. This contrast highlights that participation must be balanced with personal accountability to optimize learning outcomes.

Student participation also fostered confidence, innovation and openness to feedback. Learners who were actively involved in tasks were more willing to experiment with new techniques and seek guidance, which improved creativity, accuracy and overall technical competence. Chen et al. (2021) observed that active engagement in technical and vocational training nurtures both technical skills and self-efficacy, facilitating mastery of complex procedures. In contrast, Okello and Amanya (2019) reported that some students participated superficially, performing tasks without reflection or internalization of skills, suggesting that thoughtful practice and instructor guidance are essential to translate participation into real competence.

Furthermore, active participation reinforced the ability to integrate theoretical knowledge with practical applications. Students who regularly engaged in workshop activities were able to link classroom concepts with hands-on execution, enhancing problem-solving and decision-making skills. This supports Fitts and Posner's (1967) model, which identifies deliberate practice and feedback as critical for transitioning from cognitive understanding to autonomous performance. Without consistent engagement, learners struggled to consolidate skills and achieve efficiency in practical tasks.

The study also revealed that student participation strengthened motivation and accountability. Learners who contributed actively demonstrated greater self-discipline, persistence and responsibility for completing assigned tasks. This behaviour aligned with Skills Acquisition Theory, where repeated effort and deliberate engagement reinforce skills retention and proficiency. However, it was noted that institutional and peer support played a moderating role, as students in unsupportive environments sometimes lacked the encouragement necessary to participate consistently, which limited the effectiveness of their engagement.

Participation was further linked to long-term employability and professional preparedness. Students who consistently engaged in practical sessions developed habits of reliability, discipline, and collaboration that are highly valued in industrial settings. Supporting this, Ajzen (1991) proposed that behavioral intentions reinforced through active participation in structured learning environments enhance professional competencies beyond the classroom.

Conversely, Mburu (2020) cautioned that participation without adequate technical skills acquisition may not improve employability, emphasizing that engagement must be coupled with mastery of core competencies to ensure career readiness.

Finally, the findings underscored that student participation, when combined with disciplined practice and structured feedback, significantly enhanced the acquisition of practical skills. By actively involving themselves in workshops, students progressed more efficiently through Fitts and Posner's stages of skill development, moving from conscious effort to automatic and proficient performance execution. This demonstrated that participation is a critical component of technical and vocational learning, but its benefits are maximized when integrated with supportive teaching methods, peer collaboration and reflective practice.

5.1.4 Relationship between Students' Discipline and Practical Skills Acquisition.

The findings of this study demonstrated a strong positive relationship between students' discipline and practical skills acquisition, showing that disciplined students were more competent in carpentry and joinery tasks. Trainees who consistently followed workshop rules, adhered to instructions, maintained focus and completed tasks with precision, paid attention to details and refined practical techniques through repeated practice. Supporting this, Sawchuk (2021) emphasized that discipline, expressed through punctuality, respect and adherence to instructional authority, fosters cooperative learning and enhances technical competency. In contrast, Jones (2019) argued that excessive focus on discipline without adaptive learning

strategies may stifle creativity and limit problem-solving abilities, suggesting that discipline alone is insufficient without thoughtful engagement in tasks.

Discipline was found to encourage regularity and consistency in learning, allowing students to structure their practice sessions, manage distractions and engage deeply with hands-on activities. This structured approach enhanced their mastery of essential skills such as measuring, cutting, assembling and finishing projects. Pratiwi et al. (2023) similarly noted that structured routines and self-regulation significantly improve learning outcomes in technical settings. Conversely, Duff (2019) posited that overemphasis on routine could reduce flexibility, and students might struggle to adapt to unexpected challenges or novel tasks, indicating that balance between consistency and adaptability is critical in skills acquisition.

The study further highlighted that discipline was closely linked to personal motivation, initiative and self-regulation. Students who demonstrated responsible behaviour, sought additional practice, and assisted peers reinforced their own learning while contributing to a collaborative workshop culture. Craven (2022) supports this view by noting that cognitive, emotional and behavioral engagement strengthens students' ability to internalize and apply technical competencies effectively. However, Mensah (2020) contrasted this perspective by emphasizing that some students may exhibit discipline superficially, completing tasks mechanically without genuine understanding, which limits the depth and quality of skills.

Moreover, disciplined students exhibited greater confidence and problem-solving abilities during practical exercises. By adhering to safety protocols and workshop rules, learners felt secure and empowered to try advanced techniques, innovate and produce quality outputs. Saydam (1996) similarly found that discipline and adherence to safety measures enhance commitment and reduce errors in technical and vocational training. On the other hand, Nyamwamu and Otieno (2021) suggested that strict disciplinary frameworks could sometimes create anxiety or fear of failure, which may hinder experimentation and slow skill development, highlighting the importance of supportive guidance alongside discipline.

Discipline also reinforced consistency in time management and workshop participation. Learners who maintained structured routines were better able to plan and allocate time for both theory and practice, ensuring continuous engagement and skill reinforcement. This observation aligns with Fitts and Posner's (1967) Skills Acquisition Theory, which emphasizes repeated and deliberate practice as essential for progressing from the cognitive to the autonomous stage

of skill mastery. Without disciplined time allocation, students' skill development often stagnated at the basic or associative levels.

The study additionally indicated that disciplined students were more attentive to peer interactions and collaborative learning. By respecting others and maintaining focus, learners fostered positive group dynamics that facilitated knowledge sharing, feedback exchange, and cooperative problem-solving. This environment enhanced skill acquisition by allowing learners to practice and refine techniques collectively. Supporting this, Sawchuk (2021) noted that discipline contributes to both individual and group competency in technical training, although it must be balanced with flexibility to encourage creativity and critical thinking.

Finally, the findings underscored the professional implications of discipline, showing that students who cultivated punctuality, responsibility and self-regulation were better prepared for employability and workplace expectations. Cesilia et al. (2018) and WorldSkills (2020) similarly asserted that disciplined trainees achieve higher technical proficiency and demonstrate reliability and work ethic valued by employers.

Conversely, the Uganda Ministry of Education (2021), highlighted that only a fraction of graduates' transition into entrepreneurship or skilled employment, suggesting that discipline must be complemented by industry-aligned practice and entrepreneurial support to maximize technical success.

Therefore, the study demonstrated that students' discipline positively influenced practical skills acquisition through structured practice, personal initiative, adherence to safety protocols and collaborative engagement. While discipline alone was not sufficient, when combined with adaptive learning strategies, institutional support and reflective practice, it significantly enhanced the acquisition of technical competencies necessary for carpentry and joinery proficiency and professional readiness.

5.2 Conclusions:

Based on the findings, it can be concluded that students' discipline significantly influences the acquisition of practical skills among carpentry and joinery students in technical institutes within Lango Sub-Region. Disciplined students consistently followed workshop rules, adhered to instructors' instructions and demonstrated focus during practical sessions, which enhanced their accuracy, attention to detail and mastery of hands-on skills. The study revealed that punctuality, adherence to safety protocols and consistent engagement fostered an environment

conducive to skill development, reinforcing the critical role of discipline in technical and vocational education.

Similarly, the study concluded that respectful interactions among students are essential for effective skills acquisition. Mutual respect between peers and towards instructors facilitated cooperation, constructive feedback and open communication, which improved teamwork and collective learning outcomes. Disrespectful behaviors, on the other hand, disrupted learning, reduced attention and negatively impacted both individual and group performance. Thus, fostering respect in technical workshops enhances not only technical competencies but also social and professional skills necessary for future employability.

Furthermore, the study established that active student participation strongly correlates with practical skills acquisition. Engagement in classroom discussions, hands-on exercises and collaborative projects enabled students to apply theoretical knowledge to real-world tasks. This boosted confidence, creativity and problem-solving abilities.

Students who participated actively were able to internalize procedures, practice safely and produce higher-quality workmanship. This conclusion highlights the importance of interactive and participatory learning approaches in technical education.

The study also emphasized that safety practices are integral to skill development. Students who consistently followed safety rules were able to concentrate fully on tasks without fear of injury, resulting in higher precision and efficiency in carpentry and joinery assignments. Safety adherence not only improved learning outcomes but also prepared students for professional work environments, where compliance with safety standards is mandatory.

Finally, integrating discipline, participation, respectful interactions and safety practices creates a holistic framework for practical skills acquisition. Technical institutes that actively promote these factors tend to produce competent, responsible and employable graduates. The study concluded that enhancing these elements collectively strengthens both technical mastery and professional readiness among carpentry and joinery students.

5.3 Recommendations:

Based on the study findings, several recommendations are proposed to enhance practical skills acquisition among carpentry and joinery students:

Technical institutes should implement programs to cultivate self-discipline, punctuality and adherence to workshop rules. This could include structured routines, mentorship programs and consistent enforcement of regulations to ensure students internalize professional standards.

Institutions should encourage a culture of respect through orientation programs, role modeling by instructors and recognition of positive behaviour. Promoting mutual respect strengthens teamwork, communication and collaboration which are essential for practical learning.

Instructors should design participatory learning strategies, including group projects, peer teaching and problem-based tasks to engage students actively. Participation improves understanding, retention and practical application of theoretical knowledge.

Technical institutes must ensure the availability of protective equipment, conduct regular safety training and supervise practical sessions rigorously. Embedding safety culture reinforces student confidence, minimizes accidents, and enhances skill acquisition

5.4 Suggested Areas for Further Research:

Several areas for further research emerge from this study:

1. Impact of Individualized Learning Approaches: Future studies could explore how personalized learning strategies influence skill acquisition, creativity, and adaptability in carpentry and joinery training.
2. Link Between Technical Training and Employment Outcomes: Research could investigate the transition from technical education to entrepreneurship or formal employment, examining how discipline and participation affect employability.
3. Role of Technology in Practical Skills Development: Further studies could assess how digital tools, simulation software, or virtual workshops enhance hands-on learning and complement traditional training methods.
4. Comparative Studies Across Regions: Research could compare skill acquisition and discipline practices in technical institutes across different regions of Uganda to identify best practices and contextual challenges.

5. Longitudinal Studies on Professional Competence: Future studies may track graduates over time to determine how discipline, participation, and respect developed during training influence long-term career performance and workplace integration.

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APPENDICES

Appendix I: Survey Questionnaires for Students

Dear Respondent,

My name is Otee Joel a student of Gulu university pursuing a degree of master of education management. You are kindly invited to participate in this study, which seeks to examine the relationship between students' discipline and the acquisition of practical carpentry and joinery skills in technical institutes within Lango Sub-Region. The study specifically focuses on three components of discipline time management/punctuality, respectful interactions and students' participation and how they influence students' ability to develop practical competencies.

Your responses will provide valuable insights that will help improve teaching, learning and management practices in technical and vocational education. Please note that there are no right or wrong answers; what matters most are your honest in views and experiences. The information you provide will be treated with strict confidentiality and used solely for academic purposes. Participation is voluntary and you may withdraw at any point without any consequences.

We sincerely appreciate your time and contribution to this study.

Thank you.

Section A: Background Information

A1.1 Age Group

i. ☐ Below 18 years
ii. ☐ 18 – 24 years
iii. ☐ 25 – 30 years
iv. ☐ 30 years and above

A1.2 Gender

i. ☐ Male
ii. ☐ Female

A1.3 Marital Status

i. ☐ Single
ii. ☐ Married

A1.4 Education Background (Entry Qualification to technical institute)

i. ☐ PLE Certificate
ii. ☐ junior Certificate
iii. ☐ O-Level Certificate
iv. ☐ Diploma (***for staff***)
v. ☐ Bachelor's Degree (***for staff***)

vi. ☐ Others (please specify): _____

A1.5 Technical Institute (present)

i. ☐ ABIA Technical Institute
ii. ☐ AMUGU AGRO Technical Institute
iii. ☐ BARRLONYO Technical Institute
iv. ☐ OKWANG Technical Institute
v. ☐ Other (please specify): _____

A1.6 Designation

i. ☐ Student
ii. ☐ Instructor

A1.7 Availability of Carpentry tools

i. ☐ I have a complete set of engineering tools
ii. ☐ I have most of the tools I need
iii. ☐ I have some essential tools

SECTION B: Time Management

This section evaluates students' ability to manage time, meet deadlines, and complete tasks efficiently, focusing on aspects like punctuality, task completion, and responsibility, which are essential in a technical and vocational education setting.

No.	Statement	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
V1	In this technical institution, students consistently arrive on time for practical and theory sessions.	5	4	3	2	1
V2	Students consistently meet deadlines for assignments, projects, and other tasks assigned during the training program.	5	4	3	2	1
V3	Students manage their time effectively during practical and theoretical sessions, ensuring all tasks are completed on schedule.	5	4	3	2	1
V4	Students take ownership and responsibility for their learning progress, ensuring they meet personal learning goals.	5	4	3	2	1
V5	Students demonstrate focus and avoid distractions while performing practical tasks and assignments.	5	4	3	2	1
V6	Students effectively manage competing academic and practical tasks, demonstrating efficiency in completing them.	5	4	3	2	1

SECTION C: Respectful Interactions

This section assesses the level of respect students' show in their interactions with instructors, peers and staff in a technical training environment. It includes aspects such as positive behaviour, politeness, collaboration and maintaining a supportive and respectful classroom atmosphere.

No.	Statement	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
W1	Students demonstrate respect for instructors by listening attentively and following their guidance during practical sessions.	5	4	3	2	1
W2	Students maintain respectful and supportive relationships with their peers during group work, promoting a collaborative environment.	5	4	3	2	1
W3	During class discussions, students communicate with politeness and humility, ensuring that all voices are heard respectfully.	5	4	3	2	1
W4	Students engage in respectful dialogue, allowing others to express their opinions and contribute without interruptions.	5	4	3	2	1
W5	Students show respect for authority, including instructors and training coordinators, by following established rules and guidelines.	5	4	3	2	1
W6	In group tasks, students demonstrate mutual respect by listening to and valuing diverse opinions, contributing positively to the task at hand.	5	4	3	2	1

SECTION D: Students' Participation

This tool evaluates the extent of student participation and engagement in both practical and theoretical sessions. It focuses on their level of involvement, persistence in challenging tasks and the effort they put into contributing to class discussions and activities.

No.	Statement	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree(1)
X1	Students actively attend all practical and theoretical classes and are rarely absent.	5	4	3	2	1
X2	In practical sessions, students actively engage in hands-on tasks, demonstrating full participation in the learning process.	5	4	3	2	1
X3	Students contribute to class discussions by sharing ideas, asking questions, and engaging in critical thinking activities.	5	4	3	2	1
X4	Students remain attentive and focused during both theoretical and practical sessions, ensuring maximum learning.	5	4	3	2	1
X5	Even when tasks are challenging, students persist and continue to engage actively in completing their assignments and practical tasks.	5	4	3	2	1
X6	Students work cooperatively in teams, contributing their knowledge and skills during group-based practical sessions.	5	4	3	2	1

SECTION E: Practical Skills Acquisition (DV)

No.	Statement	Strongly Agree(5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree(1)
Z1	Students can produce accurate and precise measurements in carpentry and joinery work.	5	4	3	2	1
Z2	Students can find creative and effective ways to solve practical problems during projects.	5	4	3	2	1
Z3	Students can consistently apply safe workshop practices during practical activities.	5	4	3	2	1
Z4	Students can use a variety of tools and techniques effectively in different carpentry tasks.	5	4	3	2	1

Z5	Students can complete carpentry and joinery projects with attention to detail and high-quality finish.	5	4	3	2	1
Z6	Students can interpret design plans accurately and apply them with good aesthetic sense.	5	4	3	2	1

Appendix II: Interview guide for principals, deputy principals and Heads of departments.

(For Principals, Deputy Principals, and Heads of Departments)

1. Punctuality and Time Management

Main Question (Yes/No):

Q1: Do Carpentry and Joinery students attend practical sessions on time and complete tasks as scheduled?

☐ Yes ☐ No

If No, why?

_____

Q1a: What measures do you use to encourage punctuality and time management?

_____

Q1b: How does punctuality affect their skill acquisition in practical sessions?

2. Respectful Behaviour in Practical Training

Main Question (Yes/No):

Q2: Do students show respectful behaviour toward instructors, peers, and workshop tools during practical sessions?

☐ Yes ☐ No

If No, why?

_____

Q2a: Can you give an example of how behaviour has affected a practical session?

_____

Q2b: How does respectful conduct improve or interfere with skill development?

_____

3. Active Participation in Practical Work

Main Question (Yes/No):

Q3: Do most students actively participate in hands-on Carpentry and Joinery tasks?
☐ Yes ☐ No

If No, why?

_____

Q3a: What motivates or discourages student participation in practical work?

_____

Q3b: Do active participants tend to perform better in practical assessments?

_____

Appendix III: Focus Group Discussion (FGD) Guide for Carpentry and Joinery Students

Objective: To explore students' experiences regarding **time management**, **respectful interactions**, **participation** and **practical skills acquisition** in carpentry and joinery training.

Instructions:

- Each FGD session will include; 6–10 students.
- Duration: 15–30 minutes.
- Encourage open discussion; probe for examples and explanations.

Discussion Themes and Key Questions:

1. **Time Management**

- How do you manage your time during practical and theoretical sessions?
- What challenges do you face in completing tasks on schedule?
- How does punctuality affect your learning of practical skills?

2. **Respectful Interactions**

- How do you interact with instructors and peers during practical work?
- Can you share an experience where respect or disrespect influenced a practical session?
- How does respectful behavior help you learn better?

3. **Students' Participation**

- How actively do you participate in hands-on tasks and class discussions?
- What motivates or discourages you from participating?
- Do you think active participation improves practical skill acquisition?

4. **Practical Skills Acquisition**

- Which skills have you learned effectively in carpentry and joinery?
- What factors help or hinder you in mastering these skills?
- How do time management, respect, and participation influence your practical abilities?

Appendix V: Consent Form (Interviews and FGDs)

Appendix ii: Consent Form.

GULU UNIVERSITY

FACULTY OF EDUCATION AND

HUMANITIES.

P.O. BOX, 166 GULU.

MAY 15, 2025

PRINCIPAL
OKWANG TECH. INSTITUTE
17 JUN 2025
P.O. BOX 608, LIRA

RE: CONSENT FORM.(for Interviews and FGDs)

I OKELLO ROBERT ..... of OKWANG .....

Technical Institute, have accepted to participate in research conducted by a student from Gulu university who is pursuing Master of Education in Education Management of Gulu University. The title of the research is "Students' Discipline and Practical Skills Acquisition among Carpentry and Joinery Students - A Case of Lango Sub-Region.

The Researcher will follow research ethical ethics including confidentiality, privacy, respect of Participants among others, as stipulated by the Uganda National Council for Science and Technology. Feel free to participate (or not) in the conduct of the research. In case of any breach of ethical standards, kindly refer to the Dean of Faculty of education and Humanities, mobile number: 0772340667.

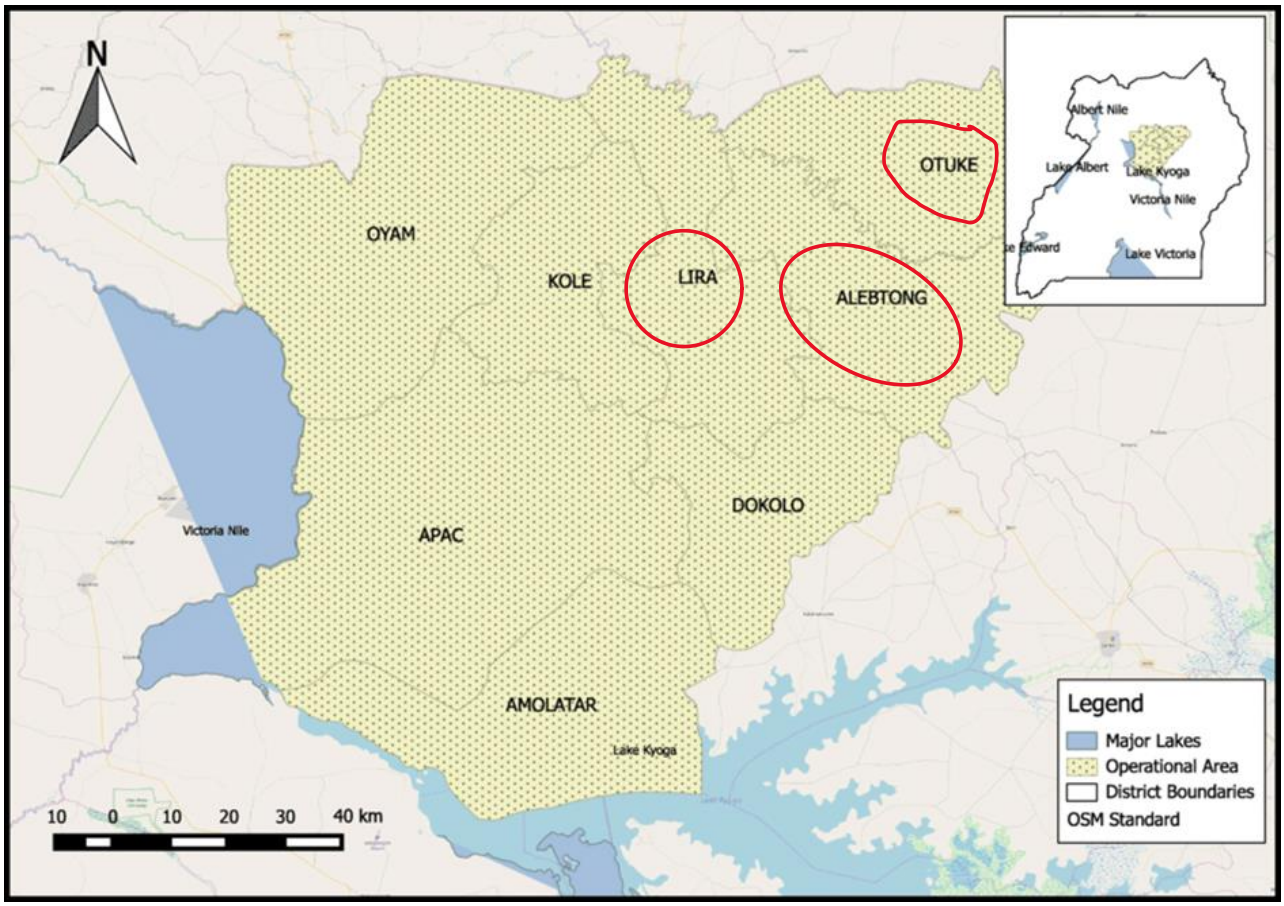
Thank you, for your cooperation!

Otee Joel

Signature .....

Date 17th/6/2025.....

Appendix VI: Map Showing Lango Sub-Region of Uganda



Appendix V: Standardized sampling table

Table 3.1

Table for Determining Sample Size of a Known Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

Note: N is Population Size; S is Sample Size *Source: Krejcie & Morgan, 1970*

Appendix VI: Introductory Letter

GULU UNIVERSITY

P.O. BOX 166 GULU

TEL: +256471432922

OFFICE OF THE DEAN, FACULTY OF EDUCATION AND HUMANITIES

20 May, 2025

TO : WHOM IT MAY CONCERN

This is to introduce to you Mr. Joel Otee (Reg No. 22/U/1609/MED/PS) a student pursuing a programme of study leading to an award Master of Education in Education Management of Gulu University, Master of Gulu University.

He is undertaking research on the Topic:

STUDENTS' DISCIPLINE AND PRACTICAL SKILLS ACQUISITION AMONG CARPENTRY AND JOINERY STUDENTS- A CASE OF TECHNICAL INSTITUTES IN LANGO SUB-REGION.

Which is in partial fulfilment of the requirements for the award.

Any assistance rendered to him in relation to this research work will be highly appreciated.

Yours faithfully,

PRINCIPAL ... P.O.BOX. ... LIRA
18th/6/25 Allowed

GULU UNIVERSITY
21 MAY 2025
FACULTY OF EDUCATION AND HUMANITIES

For

Dr. Denis Thaddeus Ofoyuru

Dean, Faculty of Education and Humanities

BARLONYO AGRO TECH. INST.
P.O. BOX 144, LIRA
16/6/2025.
Allowed.

PRINCIPAL
OKWANG TECH. INSTITUTE
17 JUN 2025
P. O. BOX 608, LIRA
Permission Granted
17/6/2025

DEPUTY PRINCIPAL
P.O.Box 312 LIRA
DATE 18/6/25
ADMINISTRATION AMUGO AGRO
Allowed

Appendix VII: Plagiarism Results

GULU UNIVERSITY

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Emails: ul@gu.ac.ug
URL: www.gu.ac.ug

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PLAGIARISM CHECK

Declaration for Originality Form

This form must be completed and signed for all scholarly work produced.

Name: JOEL OTEE (MR.)

Personal File No.(staff) Reg. (student).___ REG. 22/U/1609/MED/PS__

Faculty/Institute:___ FACULTY OF EDUCATION AND HUMANITIES, GULU UNIVERSITY

Department:____ EDUCATION MANAGEMENT ___

Title and bibliographic description of the work

STUDENTS' DISCIPLINE AND PRACTICAL SKILLS ACQUISITION AMONG CARPENTRY AND JOINERY STUDENTS - A CASE OF TECHNICAL INSTITUTES IN LANGO SUB-REGION.

Declaration.

1. I understand what plagiarism is and I am aware of the University policy on this regard,
2. I declare that this … **Dissertation** … (Proposal, thesis, essay, assignment, paper, report etc.) is my original work and has not been submitted elsewhere for examination, award of a degree or publication. Where other people's work or my work has been used, this has been properly acknowledged and referenced in accordance with Gulu University requirements,
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4. I have not allowed, and shall not allow anyone to copy my work with the intention of passing it off as his/her own,
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Signature _____ Date 20th/8/2025

Originality Report

The article/thesis/document titled above have been subjected to plagiarism check and the level was found to be……**12%** (percent) this is classified as:

- ✓ Minor
- ☐ Moderate
- ☐ Serious

Yours sincerely,

Manana N Herbert
Ag. University Librarian

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