Comparative Analysis of Student-Centered and Teacher-Centered Pedagogies on Teaching Effectiveness in a Liberian Technical College

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Abstract

This study examines the effectiveness of student-centered and teacher-centered pedagogical approaches in higher education, focusing on Bong County Technical College, Liberia. Despite global and regional advocacy for learner-centered instruction, many technical institutions in Liberia continue to rely on traditional teacher-centered practices. Using a descriptive comparative research design, data were collected from 10 instructors and 60 students through structured questionnaires and semi-structured interviews. Quantitative data were analyzed using descriptive statistics and independent samples *t*-tests, while qualitative data were examined thematically. The findings indicate that student-centered approaches enhance student engagement, participation, and collaborative learning, particularly through group work, presentations, and interactive activities. However, teacher-centered methods remain preferred for complex and technical subjects where structured guidance is required. Both instructors and students reported that a blended pedagogical approach yielded the most effective learning outcomes. The study concludes that while student-centered pedagogy improves instructional effectiveness, its successful implementation depends on institutional support, teacher capacity, and contextual adaptation. These findings suggest the need for targeted professional development and pedagogical reforms to strengthen teaching effectiveness in Liberian technical colleges.

Abstrak

*Penelitian ini bertujuan menganalisis efektivitas pendekatan pembelajaran berpusat pada mahasiswa (*student-centered learning*) dan berpusat pada dosen (*teacher-centered learning*) dalam meningkatkan efektivitas pengajaran di Bong County Technical College, Liberia. Meskipun berbagai kebijakan pendidikan global dan regional mendorong penerapan pembelajaran berpusat pada mahasiswa, banyak perguruan tinggi teknis di Liberia masih didominasi oleh pendekatan berpusat pada dosen. Penelitian ini menggunakan desain deskriptif komparatif dengan melibatkan 10 dosen dan 60 mahasiswa sebagai responden. Data dikumpulkan melalui kuesioner terstruktur dan wawancara semi-terstruktur, kemudian dianalisis menggunakan statistik deskriptif, uji* independent samples t-test*, serta analisis tematik. Hasil penelitian menunjukkan bahwa pendekatan pembelajaran berpusat pada mahasiswa berkontribusi positif terhadap keterlibatan belajar,*

partisipasi aktif, dan kolaborasi mahasiswa. Namun demikian, pendekatan berpusat pada dosen masih dianggap efektif untuk mata kuliah yang bersifat teknis dan kompleks karena memberikan struktur dan arahan yang lebih jelas. Penelitian ini menyimpulkan bahwa kombinasi kedua pendekatan pembelajaran menghasilkan efektivitas pengajaran yang optimal. Oleh karena itu, diperlukan penguatan kapasitas dosen dan dukungan institusional untuk mengimplementasikan strategi pembelajaran yang kontekstual dan adaptif di perguruan tinggi teknis Liberia.

A. INTRODUCTION

Higher education in the era of globalization requires a fundamental transformation in teaching and learning practices, particularly a shift from content transmission toward active student engagement. Contemporary educational discourse emphasizes the development of critical thinking, problem-solving, collaboration, and learner autonomy as essential competencies for the twenty-first century. Within this context, student-centered learning has emerged as a dominant pedagogical paradigm, positioning learners as active participants in the construction of knowledge rather than passive recipients of information (UNESCO, 2020, pp. 24–26). This paradigm shift challenges traditional teacher-centered instruction, which has long dominated higher education classrooms, especially in developing countries.

At the global level, international organizations have consistently advocated for learner-centered and inclusive pedagogical approaches as a means of improving educational quality and equity. UNESCO highlights that effective learning environments are those that promote participation, interaction, and meaningful engagement, enabling students to connect theoretical knowledge with real-life contexts (UNESCO, 2020, pp. 52–55). Similarly, the Organisation for Economic Co-operation and Development reports that higher education systems adopting student-centered pedagogies tend to demonstrate higher levels of student motivation, learning outcomes, and graduate employability (OECD, 2019, pp. 213–216). These global trends serve as important reference points for educational reform in developing contexts.

From a theoretical perspective, student-centered learning is strongly grounded in constructivist learning theory. Constructivism posits that learning is an active and contextualized process through which individuals construct meaning based on prior knowledge, experience, and social interaction. Within this framework, teachers function primarily as facilitators who guide, support, and scaffold student learning rather than merely transmitting information (Schunk, 2020, pp. 230–234). This theoretical orientation underscores the importance of learner autonomy, collaboration, and reflective practice, all of which are central to student-centered pedagogy.

In contrast, teacher-centered learning emphasizes direct instruction, structured content delivery, and the authoritative role of the teacher in the classroom. This approach is often perceived as efficient for managing large classes and covering

extensive curricula within limited instructional time. However, research has shown that excessive reliance on lecture-based instruction may limit opportunities for interaction, reduce student engagement, and constrain the development of higher-order cognitive skills (Schunk, 2020, pp. 198–200). As a result, teacher-centered pedagogy has increasingly been critiqued for its limited alignment with contemporary educational goals.

Despite the growing recognition of student-centered learning, many higher education institutions in Sub-Saharan Africa continue to rely predominantly on teacher-centered approaches. Studies indicate that structural constraints such as limited teaching resources, overcrowded classrooms, and insufficient pedagogical training significantly hinder the effective implementation of learner-centered methods (Tanga & Maphosa, 2018, pp. 43–45). Consequently, there exists a persistent gap between policy aspirations and classroom realities across the region.

In response to these challenges, regional policy frameworks have emphasized the need for pedagogical transformation. The African Union's Continental Education Strategy for Africa 2016–2025 explicitly calls for the adoption of learner-centered, inclusive, and competency-based education to enhance the quality and relevance of higher education across the continent (African Union, 2016, pp. 18–20). This strategy underscores the importance of aligning teaching practices with labor market demands and sustainable development goals, particularly within technical and vocational education.

Within the Liberian context, the education sector has undergone substantial reforms following years of civil conflict and public health crises that severely disrupted educational provision. The Government of Liberia, through its Education Sector Plan 2022–2027, emphasizes competency-based and student-centered instruction as a strategic priority for improving learning outcomes and workforce readiness (Ministry of Education, 2022, pp. 31–33). These reforms aim to modernize teaching practices and enhance the relevance of higher education to national development needs.

However, empirical evidence suggests that the implementation of student-centered pedagogy in Liberian higher education remains uneven. Kwasi and Williams report that many institutions continue to depend on traditional lecture-based instruction due to inadequate infrastructure, limited access to instructional technology, and insufficient professional development opportunities for faculty members (Kwasi & Williams, 2021, pp. 38–40). These challenges are particularly pronounced in technical colleges, where practical skills development is a core educational objective.

Technical education occupies a critical position in national development, as it is directly linked to the production of skilled labor and applied competencies. Effective teaching in technical colleges requires pedagogical approaches that integrate theory with practice, encourage problem-solving, and promote active engagement. Empirical studies demonstrate that active and student-centered learning strategies significantly improve student performance in science, engineering, and technology-related disciplines compared to traditional instructional methods (Freeman et al., 2014, pp.

8412–8414). These findings highlight the relevance of learner-centered pedagogy for technical education contexts.

Bong County Technical College represents a microcosm of the broader pedagogical challenges facing higher education institutions in Liberia. While institutional policies and national frameworks encourage innovation in teaching and learning, classroom practices often remain dominated by teacher-centered instruction. This situation raises important questions regarding the comparative effectiveness of student-centered and teacher-centered approaches in enhancing teaching effectiveness within this institutional context (Kwasi & Williams, 2021, pp. 41–42).

Teaching effectiveness is a multidimensional construct that extends beyond content coverage to include student engagement, interaction, motivation, and the ability to apply knowledge in practical settings. Research indicates that instructional approaches promoting active participation and collaborative learning are more likely to foster deep learning and transferable skills (Freeman et al., 2014, pp. 8415–8416). Therefore, evaluating teaching effectiveness requires careful consideration of both pedagogical practices and learner experiences.

Although international and regional studies have extensively documented the benefits of student-centered learning, there remains a scarcity of empirical research directly comparing student-centered and teacher-centered approaches within Liberian technical colleges. This lack of localized evidence limits the ability of policymakers and institutional leaders to design pedagogical interventions that are both contextually appropriate and evidence-based (Tanga & Maphosa, 2018, pp. 46–47).

Accordingly, this study seeks to examine and compare the impact of student-centered and teacher-centered pedagogical approaches on teaching effectiveness at Bong County Technical College, Liberia. By employing a descriptive comparative research design involving both instructors and students, the study aims to contribute empirical insights to the ongoing discourse on pedagogical reform in technical education. The findings are expected to inform institutional policy, faculty development programs, and national strategies for enhancing teaching and learning in Liberian higher education (Ministry of Education, 2022, pp. 34–35).

B. METHOD

This study employed a descriptive comparative research design to examine and compare the effectiveness of student-centered and teacher-centered teaching approaches at Bong County Technical College, Liberia. This design was selected because it allows for systematic comparison of instructional practices and perceptions across different pedagogical approaches without manipulating the learning environment. The approach enabled the integration of quantitative and qualitative data to provide a comprehensive understanding of teaching effectiveness from both instructors' and students' perspectives.

The research was conducted at Bong County Technical College, located in Gbarnga City, Bong County, Liberia. The institution offers technical and professional programs across multiple disciplines, including education, nursing, agriculture, and information technology. The college was selected due to its relevance to national efforts aimed at strengthening technical education and its continued use of both student-centered and teacher-centered instructional approaches in classroom practice.

The target population comprised instructors and students who had direct experience with either student-centered or teacher-centered teaching approaches at the institution. Instructors were included based on their active teaching roles, while students were selected based on their enrollment in courses delivered using one or both instructional approaches during the academic year (Kwasi & Williams, 2021, p. 40).

A purposive sampling technique was employed to select participants with relevant instructional and learning experiences. The sample consisted of 10 instructors and 60 students drawn from different departments within the college. Participants had at least one academic year of teaching or learning experience at the institution, ensuring adequate exposure to the instructional approaches under investigation.
Data were collected using two primary instruments:

1. Structured Questionnaires
   Structured questionnaires were administered to both instructors and students to gather quantitative data on perceptions of teaching effectiveness, learning engagement, assessment practices, and instructional preferences under student-centered and teacher-centered approaches. The questionnaires employed closed-ended items to facilitate statistical analysis.
2. Semi-Structured Interviews
   Semi-structured interviews were conducted with a subset of instructors to obtain qualitative insights into their experiences, challenges, and perceptions regarding the implementation of student-centered and teacher-centered teaching methods. This instrument allowed for deeper exploration of pedagogical practices and contextual constraints influencing instructional effectiveness.

Data collection was conducted during the 2025 academic year following approval from the college administration. Questionnaires were distributed in person to instructors and students, while interviews were scheduled at participants' convenience to ensure meaningful engagement and accurate responses. Participation was voluntary, and respondents were informed about the purpose of the study prior to data collection.

Quantitative data obtained from the questionnaires were analyzed using descriptive statistics, including frequencies, percentages, and mean scores, to summarize participants' responses. Additionally, independent samples *t*-tests were employed to compare perceptions of teaching effectiveness between student-centered and teacher-centered instructional approaches. Qualitative data from the interviews were analyzed using thematic analysis, enabling the identification of

recurring patterns and themes related to pedagogical practices and instructional effectiveness (Freeman et al., 2014, p. 8415).

Ethical approval for the study was obtained from the administration of Bong County Technical College. All participants were informed of the study's objectives and assured that their participation was voluntary. Informed consent was obtained prior to data collection, and confidentiality and anonymity of respondents were maintained throughout the research process. Data were used solely for academic purposes and reported in aggregate form to prevent identification of individual participants.

C. RESULT

This section presents the empirical findings of the study on student-centered learning (SCL) and teacher-centered learning (TCL) at Bong County Technical College. The results are organized into two major sections: instructors' perspectives and students' perspectives. Each subsection begins with a contextual explanation, followed by tabulated data and detailed narrative descriptions to ensure clarity and transparency of findings.

Instructors' Perspectives on Teaching Approaches

Understanding instructors' backgrounds is essential for interpreting their perceptions of teaching effectiveness. Instructors' disciplinary affiliations influence pedagogical preferences, instructional strategies, and assessment practices, particularly in technical education contexts. Therefore, the distribution of instructors by college provides important contextual insight into the nature of teaching approaches examined in this study.

Moreover, the institutional diversity represented among instructors allows for a broader understanding of how student-centered and teacher-centered approaches are applied across different academic fields. This contextual foundation supports meaningful interpretation of subsequent findings related to pedagogy and instructional effectiveness.

Table 1. Distribution of Instructors by College

College	Frequency	Percentage
Education	4	40%
Information Technology	1	10%
Nursing	3	30%
Agriculture	2	20%
Engineering	0	0%
Others	0	0%
Total	10	100%

The data indicate that instructors from the College of Education constituted the largest proportion of respondents (40%). This suggests that pedagogical practices analyzed in the study were strongly influenced by education-focused disciplines, where instructional theory and teaching methodology are central components.

Instructors from Nursing (30%) and Agriculture (20%) also formed a substantial portion of the sample. These fields require a balance between theoretical instruction

and practical application, making them particularly relevant for examining the effectiveness of student-centered and teacher-centered approaches.

The limited representation from Information Technology (10%) and the absence of Engineering instructors highlight disciplinary imbalances within the sample. Nevertheless, the presence of multiple academic fields provides sufficient diversity to examine pedagogical trends across technical and professional programs.

Courses Taught by Instructors

Prior to analyzing teaching approaches, it is important to identify the types of courses delivered by instructors. Different courses demand varying instructional strategies, which may influence preferences for student-centered or teacher-centered learning. Course distribution therefore offers insight into the instructional context of the study.

Additionally, understanding course diversity allows for interpretation of how pedagogical approaches are adapted across communication-based, technical, and skill-oriented subjects.

Table 2. Courses Taught by Instructors

Course	Frequency	Percentage
Mathematics	2	20%
Clinical Chemistry	1	10%
Physical Education	1	10%
Introduction to French	1	10%
Fundamentals of Communication	3	30%
Others	2	20%
Total	10	100%

The findings reveal that Fundamentals of Communication was the most frequently taught course (30%). This course typically involves interactive learning activities, making it suitable for student-centered pedagogical strategies.

Mathematics and other specialized courses accounted for 20% each, reflecting the presence of subjects often associated with structured and teacher-led instruction. These courses may require clear guidance and sequential explanation, which aligns with teacher-centered approaches.

Overall, the diversity of courses suggests that instructors employed a range of instructional methods depending on subject complexity and learning objectives, providing a balanced context for comparing teaching approaches.

Gender of Instructor Respondents

Instructor demographics, including gender, may influence classroom interaction styles and pedagogical preferences. Examining gender distribution helps contextualize instructional dynamics within the institution.

Furthermore, gender representation reflects broader structural characteristics of the teaching workforce, which may indirectly shape institutional teaching culture.

Table 3. Gender of Instructor Respondents

Gender	Frequency	Percentage
Male	9	90%
Female	1	10%
Total	10	100%

The data show a strong male dominance among instructors, with males representing 90% of respondents. This imbalance reflects broader gender disparities within technical and higher education institutions.

The limited representation of female instructors suggests restricted diversity in teaching perspectives. This imbalance may influence classroom authority structures and pedagogical norms.

Although gender was not a primary variable in this study, the findings provide important contextual information for interpreting instructor perceptions of teaching approaches.

Teaching Experience of Instructors

Teaching experience is a critical factor influencing pedagogical competence and openness to innovative instructional methods. Instructors with varying levels of experience may differ in their adoption of student-centered strategies.

Analyzing teaching experience helps explain instructors' confidence levels and adaptability to pedagogical reforms.

Table 4. Teaching Experience of Instructors

Years of Teaching	Frequency	Percentage
0–1 year	1	10%
2–5 years	7	70%
6–10 years	2	20%
11–15 years	0	0%
Total	10	100%

The majority of instructors (70%) reported having between two and five years of teaching experience. This suggests that most respondents were early-career educators.

Instructors within this experience range may be more receptive to pedagogical innovations such as student-centered learning, as they are often exposed to recent teaching methodologies.

However, limited representation of senior instructors may reduce insights into long-term pedagogical practices within the institution.

Instructors' Involvement in Student-Centered Learning Initiatives

Institutional support and instructor involvement are essential for the successful implementation of student-centered learning. Examining participation levels provides insight into institutional commitment to pedagogical reform.

This analysis also highlights the extent to which instructors engage with professional development initiatives related to teaching innovation.

Table 5. Instructors' Involvement in Student-Centered Learning Initiatives

Level of Involvement	Frequency	Percentage
No involvement	2	20%
Minimal involvement	4	40%
Moderate involvement	3	30%
Substantial involvement	1	10%
Total	10	100%

The findings show that 40% of instructors reported minimal involvement in student-centered learning initiatives. This indicates limited institutional engagement at the instructional level.

Only 10% reported substantial involvement, suggesting that leadership roles in pedagogical innovation were concentrated among a few individuals.

The results imply that while student-centered learning is acknowledged institutionally, its implementation remains uneven and dependent on individual initiative.

Students' Perspectives on Teaching Approaches

Students' perceptions are central to evaluating teaching effectiveness, as they directly experience instructional practices. Examining students' attitudes toward learning activities provides insight into how pedagogical approaches influence engagement and motivation.

Additionally, students' preferences reveal how different instructional strategies align with their learning needs and expectations within a technical education context.

Table 6. Students' Attitudes Toward Group Work

Preference	Percentage
Teacher-directed group work	30%
Peer oral presentations	28%
Small-group discussions	22%
Goal-oriented collaboration	20%

The results indicate that students most strongly preferred teacher-directed group work (30%). This suggests that while students value collaboration, they still rely on instructor guidance.

Peer presentations and small-group discussions were also positively received, highlighting openness to interactive learning environments.

These findings demonstrate a hybrid preference, where students favor collaborative learning supported by structured facilitation.

Table 7. Students' Attitudes Toward Teaching Authority

Attitude	Percentage
Teacher evaluates learning	48%
Knowledge transmitted by teacher	38%
Teacher authority unquestioned	14%

Nearly half of the students expected teachers to evaluate their learning, reflecting strong reliance on instructor authority.

A substantial proportion viewed knowledge as something transmitted by teachers rather than constructed independently.

These results suggest that traditional perceptions of authority continue to shape student expectations, even within student-centered environments.

Overall, the findings demonstrate that both instructors and students recognize the value of student-centered learning for engagement and interaction. However, teacher-centered approaches remain prominent, particularly in structured and technical learning contexts.

The data reveal a consistent preference for blended instructional models that integrate active learning with teacher guidance. This pattern reflects contextual realities within technical education institutions.

These results provide a strong empirical foundation for subsequent discussion on pedagogical effectiveness and instructional reform.

D. DISCUSSION

Comparative Effectiveness of Student-Centered and Teacher-Centered Learning

The findings of this study indicate that both student-centered learning (SCL) and teacher-centered learning (TCL) play significant yet distinct roles in shaping teaching effectiveness at Bong County Technical College. Student-centered approaches were associated with higher levels of student engagement, participation, collaboration, and motivation, particularly through group work, presentations, and interactive classroom activities. These outcomes support the central premise of constructivist learning theory, which emphasizes active knowledge construction through social interaction and experiential learning (Schunk, 2020). Rather than positioning students as passive recipients of information, SCL enables learners to take ownership of the learning process, thereby enhancing deeper understanding and retention.

These findings are consistent with extensive empirical evidence demonstrating the advantages of active and student-centered pedagogies in higher education. Freeman et al. (2014) found that active learning significantly improves student performance and reduces failure rates in science, engineering, and mathematics disciplines. Similarly, Prince (2004) argues that student-centered and active learning strategies foster conceptual understanding and problem-solving skills, particularly in applied and technical fields. The alignment between the present study and these international findings suggests that the pedagogical benefits of student-centered learning are not limited to developed educational systems but are also observable within resource-constrained technical colleges in Liberia.

However, the results also demonstrate that teacher-centered learning remains highly valued by both instructors and students, especially in courses perceived as complex, technical, or abstract. Many students expressed preference for structured explanations, direct instruction, and clear guidance provided by instructors, particularly in mathematics and technically demanding subjects. This finding reflects the enduring relevance of teacher-centered pedagogy in contexts where foundational knowledge acquisition and procedural clarity are critical. Schunk (2020) emphasizes

that direct instruction can be pedagogically effective when learners lack prior knowledge or when content complexity requires systematic scaffolding.

The coexistence of these preferences highlights that teaching effectiveness is not determined by the dominance of a single pedagogical approach but rather by its alignment with instructional goals, subject matter, and learner readiness. Biggs and Tang (2011) describe this alignment as *constructive alignment*, where teaching methods, learning activities, and assessment strategies are coherently matched to intended learning outcomes. In the present study, instructors' reliance on teacher-centered methods for technical instruction and student-centered strategies for communication and collaborative tasks reflects pragmatic pedagogical decision-making rather than resistance to innovation.

Importantly, the strong student preference for blended instructional models observed in this study further reinforces the complementary nature of SCL and TCL. Students valued opportunities for independent and collaborative learning while simultaneously expecting guidance, feedback, and evaluation from instructors. This finding echoes OECD (2019) reports, which suggest that effective higher education systems increasingly adopt hybrid pedagogical models that integrate structured instruction with learner-centered activities. Such models are particularly relevant in technical education, where both conceptual understanding and applied competence are required.

Taken together, these findings challenge dichotomous narratives that position student-centered and teacher-centered learning as mutually exclusive or hierarchically superior. Instead, the results suggest that teaching effectiveness in technical education is maximized through a context-sensitive integration of both approaches. In the Liberian technical college context, where students' prior educational experiences, institutional constraints, and curricular demands vary considerably, a flexible pedagogical framework that balances student autonomy with instructional structure appears to be the most effective strategy. This interpretation extends existing literature by providing localized empirical evidence that pedagogical effectiveness is inherently contextual and adaptive rather than universally prescriptive.

Contextual and Cultural Factors Shaping Pedagogical Preferences

The findings of this study reveal that students' and instructors' pedagogical preferences at Bong County Technical College are deeply shaped by contextual and cultural factors rather than by purely pedagogical considerations. Although student-centered learning was associated with higher engagement and interaction, many students continued to express strong reliance on teacher authority, structured instruction, and direct evaluation by instructors. This pattern reflects entrenched educational norms in which teachers are traditionally viewed as primary sources of knowledge and legitimate authority figures in the classroom, a phenomenon commonly observed in many African educational contexts (Tabulawa, 2013).

Cultural expectations regarding authority and hierarchy play a critical role in shaping learning behaviors and classroom dynamics. Hofstede's (2011) theory of cultural dimensions, particularly the concept of *power distance*, provides a useful lens

for interpreting these findings. In high power-distance cultures, learners tend to expect clear direction from instructors and may perceive questioning or independent knowledge construction as inappropriate. The strong student expectation that teachers should evaluate learning and transmit knowledge, as observed in this study, aligns with these cultural patterns and helps explain why teacher-centered approaches remain influential despite exposure to student-centered practices.

In addition to cultural norms, structural and institutional constraints significantly influence pedagogical implementation. Prior research indicates that limited instructional resources, large class sizes, and insufficient access to educational technology often constrain the effective application of student-centered learning in Sub-Saharan Africa (Tanga & Maphosa, 2018). Within the context of Bong County Technical College, these constraints likely reinforce reliance on teacher-centered instruction, which is often perceived as more manageable and efficient under resource-limited conditions. As a result, pedagogical choices are shaped not only by instructional philosophy but also by practical feasibility.

Students' learning histories further contribute to their pedagogical preferences. Many students in Liberian higher education systems have been educated in environments dominated by lecture-based and examination-oriented instruction. Consequently, student-centered learning may represent a significant departure from familiar learning practices, requiring higher levels of self-regulation, confidence, and academic independence. Vygotsky's (1978) social constructivist theory emphasizes the importance of guided interaction and scaffolding, suggesting that abrupt transitions to fully student-centered environments may create cognitive and emotional challenges for learners who are accustomed to directive instruction.

The preference for blended instructional approaches observed in this study can therefore be understood as an adaptive response to both cultural expectations and contextual realities. Rather than rejecting student-centered learning, students appear to favor instructional models that combine active participation with sustained teacher guidance. This finding supports arguments by Tabulawa (2013) that learner-centered pedagogy in African contexts should not be transplanted uncritically from Western educational models but should instead be culturally and institutionally adapted to local realities.

Overall, these findings underscore the importance of contextual sensitivity in pedagogical reform. The persistence of teacher-centered preferences at Bong County Technical College does not necessarily indicate resistance to innovation but reflects rational adaptation to cultural norms, prior learning experiences, and structural constraints. Understanding these contextual and cultural dimensions is essential for interpreting teaching effectiveness and for designing pedagogical strategies that are both educationally sound and socially legitimate within technical education systems in Liberia and similar contexts.

Implications for Teaching Practice and Policy in Technical Education

The findings of this study carry important implications for teaching practice within technical and vocational higher education, particularly in resource-constrained contexts such as Liberia. The demonstrated effectiveness of both student-centered and teacher-centered learning suggests that pedagogical improvement should not be framed as a binary shift from traditional instruction to fully student-centered models. Instead, instructors should be encouraged to adopt flexible and adaptive teaching strategies that align instructional methods with course objectives, content complexity, and students' readiness levels. This perspective is consistent with Biggs and Tang's (2011) concept of constructive alignment, which emphasizes coherence between learning outcomes, teaching activities, and assessment practices.

At the institutional level, the findings highlight the need for targeted professional development programs that strengthen instructors' pedagogical competencies across multiple teaching approaches. Rather than focusing exclusively on promoting student-centered methodologies, training initiatives should support instructors in effectively integrating interactive learning activities with structured guidance and assessment. OECD (2019) emphasizes that teaching quality improvements are most sustainable when professional development initiatives are contextually relevant and directly connected to instructors' everyday classroom challenges. In technical colleges, such capacity-building efforts are particularly crucial given the dual demand for theoretical understanding and practical skill acquisition.

From a policy perspective, the results underscore the importance of aligning pedagogical reform with broader national education strategies. Liberia's education policy frameworks emphasize improving the quality and relevance of technical education to support workforce development and economic growth (Ministry of Education, 2022). The preference for blended pedagogical approaches identified in this study suggests that policy directives should prioritize instructional flexibility rather than prescriptive teaching models. Furthermore, international frameworks such as UNESCO's (2020) Education 2030 Agenda and SDG 4 advocate for inclusive and quality education systems that recognize diverse learning needs and contextual realities. In this regard, promoting adaptive pedagogical practices in technical education can contribute meaningfully to national and global education development goals.

E. CONCLUSION

This study examined the comparative effectiveness of student-centered and teacher centered teaching approaches at Bong County Technical College, Liberia, with a focus on instructors' and students' perceptions of instructional effectiveness. The findings demonstrate that student-centered learning enhances engagement, interaction, and collaborative learning, while teacher-centered instruction remains valuable for delivering complex and technical content that requires structured guidance. Importantly, the results reveal that teaching effectiveness is maximized not

through exclusive reliance on a single pedagogical model but through a context-sensitive integration of both approaches.

Overall, the study contributes empirical evidence to ongoing debates on pedagogical effectiveness in technical education within Sub-Saharan Africa. By highlighting the influence of cultural norms, institutional constraints, and prior learning experiences on pedagogical preferences, the research underscores the need for adaptive and flexible instructional frameworks. These findings offer practical insights for educators and policymakers seeking to improve teaching quality in technical colleges, while also reinforcing the importance of aligning pedagogical reform with local educational realities and development priorities.

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