

The Strategic Positioning and Implementation Pathways of English Language Teaching in Sino-African Vocational Education Cooperation

-- A Study under the Framework of the Belt and Road Initiative

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Abstract: This article investigates the strategic role of English language teaching within Sino-African Technical and Vocational Education and Training (TVET) cooperation under the framework of the Belt and Road Initiative (BRI). As China-Africa collaboration deepens, moving beyond infrastructure to human capital development, TVET programs like Luban Workshops have become pivotal. However, the linguistic barrier, with English serving as the de facto lingua franca and medium of instruction (EMI), has emerged as a critical yet under-examined challenge. This study addresses this gap by conducting a qualitative analysis, including a case study of representative TVET projects in Ethiopia and Kenya, to diagnose the current status and multifaceted needs concerning English language proficiency. The findings reveal a significant “strategic-praxis misalignment,” characterized by a dual dilemma in teaching staff, maladaptation of teaching materials, and a systemic void in policy. To resolve these issues, this paper constructs a new strategic positioning framework, re-envisioning English teaching not as an auxiliary tool but as a “Core Empowerment System.” This system is defined by three core functions: a “cognitive scaffold” for skill acquisition, a “practical bridge” for intercultural communication, and a “value-adding accelerator” for career development. Based on this framework, the article proposes a multi-level implementation pathway, offering systematic strategies for national policy design, institutional program management, and classroom-level pedagogical innovation. The study contributes a novel analytical framework for understanding the role of language in South-South cooperation and provides actionable recommendations for enhancing the quality and sustainability of international TVET collaboration.

Keywords: Belt and Road Initiative (BRI); English as a Medium of Instruction (EMI); English for Vocational Purposes (EVP); Sino-African cooperation; Technical and Vocational Education and Training (TVET).

1. Introduction

1.1. Research Background and Significance

1.1.1. Research Background

In the new phase of globalization, emerging development partnerships represented by South-South Cooperation are becoming a key force in reshaping the international development landscape. Against this backdrop, China's Belt and Road Initiative (BRI), a far-reaching global development strategy proposed in 2013, has greatly promoted its cooperation with partner countries, especially African nations, in infrastructure, trade, and industrial capacity.

A core pillar of this deepened cooperative relationship is the urgent need for human capital development, aimed at supporting the industrialization and modernization processes of African countries. In response, cooperation in the field of Technical and Vocational Education and Training (TVET) between China and Africa has rapidly expanded. Cooperative models, represented by projects like the “Luban Workshops,” are dedicated to combining China's technical standards and vocational education experience with local African needs to cultivate urgently needed skilled talent.

However, this transnational and cross-cultural transfer of knowledge and technology faces a key implementation challenge: the language barrier. In the vast majority of Sino-African TVET cooperation projects, English exists not as a foreign language course but as the de facto lingua franca for

communication and the actual English as a Medium of Instruction (EMI). The effectiveness of everything from Chinese instructors' explanations of complex technical principles to African trainees' understanding of operational procedures is highly dependent on English as a communication bridge. Therefore, the strategy and practice of English language teaching have gone beyond the scope of traditional language education, becoming a decisive factor directly affecting the efficiency of skill transfer, the sustainability of cooperation projects, and the success of the entire collaboration.

Despite its crucial role, the strategic value and implementation pathways of English language teaching, especially English for Vocational Purposes (EVP) as a subset of English for Specific Purposes (ESP), within the unique context of South-South cooperation under the BRI, still lack systematic theoretical exploration and a clear policy framework in the existing academic literature. This study attempts to conduct a preliminary exploration of this issue to provide some reference for research in this field.

1.1.2. Research Significance

1) Theoretical Contributions

Integrating Interdisciplinary Research: This study intersects and merges theories from international development studies, comparative education (especially in the direction of TVET internationalization), and applied linguistics. It attempts to move beyond the limitations of single-discipline analysis to provide an integrative

perspective for understanding the interplay between “soft infrastructure” (such as language and communication) and “hard infrastructure” in large-scale international development projects.

Expanding the Frontiers of Applied Linguistics: This study applies the theories of English for Specific Purposes (ESP) and English as a Medium of Instruction (EMI) to a unique, non-postcolonial, South-South cooperation context. This contrasts with most current ESP/EMI research that focuses on higher education in Western or postcolonial regions, thereby providing new empirical evidence and insights into the applicability and variability of these theories in different socio-political contexts.

Enriching Belt and Road and Development Studies: This study injects key “human factors” and “language planning” dimensions into the current BRI research, which is predominantly focused on macroeconomic and geopolitical analysis. It argues that language strategy is not an additional item in international cooperation but an intrinsic core element that determines its success and sustainability.

2) Practical and Policy Implications

Providing Reference for International Development Policy: The findings of this study can offer evidence-based recommendations for policymakers and development agencies in China and other emerging development partner countries on how to effectively integrate language planning into international TVET cooperation projects, with the aim of improving project efficiency and the sustainability of localization.

Providing a Practical Framework for Transnational Educational Institutions: The research outcomes will provide a systematic framework for TVET institutions, curriculum developers, and teachers involved in transnational educational projects, covering curriculum design, textbook adaptation, and teacher training, to help them more effectively address cross-cultural teaching challenges.

Providing Insights for Industry and Cross-Cultural Management: For enterprises involved in the BRI and other international technology transfer projects, this study reveals the underlying causes of communication barriers and provides useful insights for improving communication efficiency, facilitating technology absorption, and promoting team integration in multilingual and multicultural work environments.

1.2. Literature Review

To accurately position the academic coordinates and contributions of this study, this section will review and comment on the existing literature from three interconnected academic fields: (1) research on Sino-African vocational education cooperation under the BRI; (2) research on language policy and language services in the BRI; and (3) research on EMI and ESP in international education. Through this review, the study aims to reveal gaps in current research and clarify its own entry point and innovative value.

1.2.1. Sino-African Vocational Education Cooperation under the Belt and Road Initiative

In recent years, with the deepening of Sino-African cooperation, TVET cooperation under the BRI has become a hot topic in academia. Existing research mainly focuses on the following aspects.

Firstly, at the level of cooperation models and motivations, scholars have conducted in-depth analyses of iconic projects like the “Luban Workshops.” For example, the study by Li

and Xue [1] elaborates on the operational model of the Luban Workshop as a platform for technology and cultural dissemination, emphasizing its feature of “education following production, and integrating production with education.” Charles and Song [2] analyze Sino-African TVET cooperation from a political economy perspective, arguing that it is not only a measure for human capital development but also a manifestation of the new development partnership being built between China and African countries.

Secondly, regarding challenges and localization, researchers have generally noted the difficulties faced by cooperation projects in practice. Ngware et al. [3], in their research on TVET projects in Kenya, point out that the localization of curricula, precise alignment with local industrial needs, and smooth employment channels for graduates are key challenges to project success. Zhu [4] explores the tension between standard-exporting and local adaptation in the Chinese model by comparing Sino-German vocational education cooperation in Africa.

In summary, the existing research on Sino-African TVET cooperation is fruitful, mostly approaching from perspectives such as macro-strategy, geopolitics, institutional building, and curriculum comparison. While many studies mention language barriers in passing when discussing challenges, few have systematically and deeply investigated “language” as a core independent variable, exploring how the strategic lack of language teaching fundamentally constrains the depth and breadth of cooperation, nor have they proposed systematic language solutions at the policy level.

1.2.2. Language Services and Language Policy in the Belt and Road Initiative

The advancement of the BRI has given rise to the emerging interdisciplinary research field of “language services.” Scholars recognize the fundamental role of language in transnational economic, trade, and cultural exchanges. The study by Hu et al. [5] explores the changing role of English as a Lingua Franca (ELF) in the context of the BRI and its implications for China’s foreign language policy. Gao [6] analyzes how the BRI is reshaping the global language landscape in a multilingual context and discusses China’s language policy responses. Meanwhile, the research by Cui and Liu [7] emphasizes the urgency and importance of providing a multilingual and comprehensive language service system for the construction of the BRI.

Research in this field has effectively raised the academic community’s awareness of language as “soft power” and “infrastructure.” However, its focus is mostly on business communication, translation, international communication, or macro-level language strategic planning. These studies rarely delve into specific industry sectors, especially vocational education. How language policy can be synergized with specific TVET talent cultivation policies, and how language services can be precisely aligned with the training needs of skilled personnel, remain weak links in the existing literature.

1.2.3. English as a Medium of Instruction (EMI) and English for Specific Purposes (ESP) in International Education

EMI and ESP are mature fields in applied linguistics with a wealth of research. In EMI, the internationalization of global higher education has fueled a boom in related research. The review by Ismailov [8] discusses the global trends, driving factors, and challenges faced by EMI in terms of teaching staff and pedagogy. Aguilar-Pérez and Arnó-Macià [9] have conducted in-depth analyses of micro-issues such as

teacher-student interaction and identity construction in EMI classrooms. In the field of ESP, particularly English for Vocational Purposes (EVP), researchers continue to focus on Needs Analysis and curriculum design for specific vocational fields.

Although EMI and ESP research is very deep, its research context shows a clear “path dependency.” First, the vast majority of EMI research focuses on higher education (universities), with relatively little attention paid to technical and vocational education (colleges and training centers). Second, its mainstream research settings are often international student education in English-speaking countries (like the U.S. and U.K.), or efforts by non-English-speaking countries to integrate into the global academic system in a post-colonial context. The explanatory power and guiding significance of existing theories face new challenges when confronted with a practice like Sino-African cooperation, which is led by a “non-native English-speaking country” (China), conducted in a “non-native English-speaking third country” (in Africa), and with content that is “non-academic vocational skills.” This unique “South-South cooperation” language teaching context is largely an overlooked corner in mainstream international literature.

1.2.4. This Study’s Entry Point and Academic Contribution

In summary, existing research has touched upon various aspects of this topic from different perspectives, but further exploration is needed in the cross-analysis of these different viewpoints. This study attempts to explore further on this basis, and its uniqueness and academic contribution lie in:

This study does not simply superimpose research from three fields but positions English language teaching as the core hub connecting Sino-African cooperation strategy, vocational education practice, and language development policy. It will systematically argue that, in the specific context of Sino-African TVET cooperation, English language teaching should not be regarded as an isolated, auxiliary course but must be elevated to a strategic height concerning the success or failure of the cooperation, requiring a complete set of pathways from top-level policy design to micro-level classroom implementation. Through an analysis of the language issues in this unique “South-South cooperation” model, this study aims to provide new empirical materials for related theories and to offer practical policy recommendations for improving the quality of international development cooperation under the BRI.

1.3. Research Scope and Core Questions

This study aims to systematically explore the strategic role that English language teaching should play in Sino-African TVET cooperation under the macro framework of the BRI and to construct its effective implementation pathways. The research content will cover three main levels: first, diagnosing the current situation, diverse needs, and core challenges of English language teaching in the cooperation; second, based on the diagnostic results, constructing a strategic positioning model for English language teaching from a theoretical height; and finally, translating the strategic positioning into operational implementation pathways at the macro (policy), meso (institutional), and micro (classroom) levels.

To achieve these research objectives, this study will revolve around one central question and three sub-questions:

1) Central Research Question:

In the context of the BRI and Sino-African cooperation,

how should English language teaching be strategically positioned and its pathways designed to most effectively empower skill transfer and intercultural communication, thereby enhancing the overall quality and sustainability of Sino-African TVET cooperation?

2) Sub-questions:

SQL: Status Quo & Challenges: What is the actual role of English language teaching in current Sino-African TVET cooperation? What are the diverse needs of key stakeholders such as Chinese instructors, African trainees, and related enterprises? What core dilemmas and challenges does its practice face?

SQ2: Strategy & Positioning: From the perspective of serving skill cultivation and cross-cultural adaptation, what should be the ideal functional positioning (what role should it play) and target positioning (what goals should it achieve) for English language teaching in Sino-African TVET cooperation?

SQ3: Pathways & Mechanisms: What implementation pathways need to be constructed to achieve the above strategic positioning? What specific strategies and mechanisms should be adopted at different levels, such as national policy, institutional management, and classroom teaching?

1.4. Research Approach, Methodology, and Framework

1.4.1. Research Approach

This study follows a progressive logical approach of “diagnosis-construction-application.” First, the study will be based on theoretical foundations and realistic diagnosis (“what is”), accurately identifying the root causes of problems by deeply analyzing the current situation, needs, and challenges of English language teaching in Sino-African TVET cooperation. Second, based on the diagnosis, the study will enter the theoretical construction phase (“what ought to be”), clarifying the strategic position and function that English language teaching should have. Finally, the study will focus on the application level, aiming to build a bridge connecting “reality” and “ideal,” that is, designing a systematic, multi-level implementation pathway (“how to”), and ultimately proposing actionable policy recommendations.

1.4.2. Research Methodology

To systematically answer the research questions, this study will primarily adopt a qualitative research method, integrating various specific research tools to achieve data triangulation.

1) Literature Review: Systematically review and critical analysis of academic literature in related fields such as the BRI, Sino-African cooperation, TVET internationalization, and ESP/EMI to provide a solid theoretical basis for this study and to accurately identify research gaps and academic frontiers.

2) Policy Document Analysis: Collect and deeply interpret official policy documents such as the outcome documents of the Forum on China-Africa Cooperation (FOCAC), relevant guiding opinions on the BRI, educational cooperation agreements between China and African partner countries, and national education development plans to analyze the degree of attention and layout for the coordinated development of language and skills training in the existing policy framework.

3) Case Study Method: Select 2-3 representative Sino-African TVET cooperation projects (e.g., “Luban Workshops” in different African countries, specific enterprise-led overseas training centers) as case studies. Conduct semi-structured interviews with project managers, Chinese and African

instructors, and trainees, and perform content analysis of teaching syllabi, textbooks, and other teaching documents to obtain rich, in-depth primary data to explore specific practices and challenges in reality.

1.5. Thesis Framework

The analytical framework of this study is developed across four interconnected chapters, supplemented by introductory and concluding remarks.

Chapter 2: Theoretical Framework and Conceptual Clarification. This chapter establishes the theoretical scaffolding for subsequent analysis, systematically introducing and reviewing theories such as human capital theory, South-South cooperation theory, and applied linguistics theories like ESP, EMI, and ELF, and provides operational definitions for the core concepts in the paper.

Chapter 3: The Status Quo, Needs, and Challenges. This chapter is the empirical diagnostic part of the study. Based on primary data obtained from case studies, this chapter will deeply analyze the actual situation of English language teaching in Sino-African TVET cooperation, the diverse needs of various stakeholders, and systematically summarize the core dilemmas faced by current practices.

Chapter 4: Constructing the Strategic Positioning. This chapter is the theoretical construction part of the study. Based on the diagnosis in Chapter 3, this chapter will systematically construct a new strategic positioning framework for English language teaching in Sino-African TVET cooperation, clarifying the basic principles it should follow, the core functions it should possess, and the tiered goals it should achieve.

Chapter 5: The Implementation Pathways. This chapter is the application and countermeasure part of the study. To translate the strategic blueprint of Chapter 4 into real action, this chapter will design a mutually supportive and operational implementation pathway system from the macro (national policy), meso (institutional project), and micro (classroom teaching) levels.

2. Theoretical Framework and Conceptual Clarification

Any in-depth research requires a clear theoretical perspective and precise conceptual definitions. This chapter aims to provide theoretical support for subsequent empirical analysis and strategic construction. First, this chapter will introduce and review three interrelated clusters of theories: at the macro level, human capital theory and South-South cooperation theory, which explain the fundamental motivations and nature of Sino-African TVET cooperation; at the meso and micro levels, theories of English for Specific Purposes (ESP), English as a Medium of Instruction (EMI), and English as a Lingua Franca (ELF), which provide the core analytical tools for analyzing language teaching issues in the cooperation. Subsequently, this chapter will provide operational definitions for the core concepts in the thesis to ensure the rigor and consistency of the research. Finally, this chapter will integrate the above theories to form a multi-dimensional, multi-level comprehensive analytical framework.

2.1. Macro Strategy and International Cooperation Theories

2.1.1. Human Capital Theory

Developed by economists such as Theodore Schultz and Gary Becker, the core idea of human capital theory is that education and training are not merely consumption but a strategic investment that can yield future returns. The theory posits that a nation's stock of human capital—the total knowledge, skills, and abilities possessed by its labor force—is a decisive factor in economic growth and social development. Human capital theory provides a fundamental explanation for the motivation behind Sino-African TVET cooperation. For African partner countries, acquiring advanced vocational skills and technical standards through cooperation is a key pathway to accumulating human capital, promoting industrialization, alleviating poverty, and integrating into the global value chain. For China, helping partner countries cultivate local technical talent through TVET cooperation is not only a reflection of its international responsibility but also a necessary prerequisite for ensuring the sustainable operation of various infrastructure and capacity cooperation projects under the BRI and achieving mutual benefits. Therefore, Sino-African TVET cooperation is essentially a strategic act of joint investment in Africa's future human capital.

2.1.2. South-South Cooperation Theory

South-South cooperation theory emphasizes partnerships established among developing countries based on the principles of equality, mutual benefit, mutual respect, and solidarity. It differs from the unequal “donor-recipient” dynamic of traditional “North-South cooperation,” focusing more on experience sharing, capacity building, and common development. South-South cooperation theory sets a unique analytical context for this study. Sino-African TVET cooperation is not a simple one-way transfer of technology or “aid,” but a complex process jointly participated in, negotiated, and implemented by China and African countries, both of whom are developing members. This theoretical perspective reminds us that when analyzing the challenges in cooperation (including language teaching issues), we must fully consider the differences and parity in culture, institutions, and development stages between the two sides. It suggests that any solution design must abandon a “one-size-fits-all” model, emphasizing localization adaptation and two-way cross-cultural understanding, rather than unilaterally copying any existing model.

2.2. Applied Linguistics and Intercultural Communication Theories

2.2.1. English for Specific Purposes (ESP) Theory

ESP theory is a core branch of applied linguistics, with its fundamental principle being “needs determine everything.” As defined by early scholars like Hutchinson & Waters (1987), ESP is not about teaching a specific type of language, but a teaching methodology centered on the specific academic or professional needs of learners. Its implementation core lies in conducting a systematic and comprehensive Needs Analysis to determine the tasks learners need to perform using English in the target situation (Target Situation Analysis) and their current language proficiency shortcomings (Present Situation Analysis). ESP theory is the core tool for analyzing language teaching issues in this study. It directly indicates that in Sino-African TVET cooperation, English teaching should not be

general-purpose English (EGP) focusing on grammar and daily conversation, but highly customized English for Vocational Purposes (EVP). This study will use the needs analysis framework of ESP to systematically investigate the specific English usage needs of African trainees in learning professional skills, participating in internships, and even in future employment (e.g., reading English technical manuals, understanding instructions from Chinese instructors, and conducting safe operation communication), thereby providing an empirical basis for subsequent strategic positioning and pathway design.

2.2.2. English as a Medium of Instruction (EMI) and English as a Lingua Franca (ELF) Theories

EMI refers to the phenomenon of using English to teach non-language subjects (such as engineering and medicine) in countries where English is not the native language. ELF focuses on the actual use of English as a communication tool among non-native English speakers with different mother tongues, with the emphasis on communicative effectiveness rather than adherence to a “native speaker model.” The classroom in Sino-African TVET cooperation is a typical and even more complex field where EMI and ELF are intertwined. It usually involves non-native English-speaking Chinese instructors using English to teach professional skills to non-native English-speaking African trainees. EMI theory helps us understand the cognitive load, pedagogical challenges, and identity issues faced by both teachers and students in this environment. ELF theory, on the other hand, suggests that the criterion for judging the success of English teaching in this context should not be whether trainees can speak with a “perfect” London or New York accent, but whether they can effectively and appropriately use English to complete their professional studies and work tasks. These two theories together argue that in this context, the goal of English teaching should be to cultivate functional, communication-efficiency-oriented vocational communication skills.

2.3. Clarification of Core Concepts

To ensure the clarity and focus of the research, the following core concepts are defined in this dissertation as follows:

2.3.1. Sino-African Technical and Vocational Education and Training (TVET) Cooperation

This refers to the sum of activities and projects under the framework of the BRI and the FOCAC, jointly participated in by multiple stakeholders from the governments, vocational colleges, industry associations, and enterprises of China and African countries, aimed at cultivating localized, high-quality technical and skilled talent for the economic and social development of Africa through education and training cooperation.

2.3.2. Strategic Positioning of English Language Teaching

This refers to the conscious, forward-looking planning and definition of the functional roles, phased and ultimate goals, and core values that English language teaching should play in the Sino-African TVET cooperation ecosystem, transcending the scope of traditional curriculum setting and serving the overall strategy of Sino-African cooperation. It emphasizes a top-down design rather than passive adaptation.

2.3.3. Implementation Pathways

This refers to a systematic, multi-level, and operational set of strategies and mechanisms designed to achieve the above

strategic positioning. It covers the macro-level of national policy and standard setting, the meso-level of institutional management and curriculum reform, and the micro-level of teacher development and classroom teaching innovation.

This chapter has built a multi-dimensional, comprehensive analytical framework by introducing human capital theory, South-South cooperation theory, ESP theory, and EMI/ELF theories. This framework not only provides a macro perspective for understanding the motivations and nature of Sino-African TVET cooperation but also offers precise micro-tools for in-depth analysis of its internal language teaching issues. At the same time, by defining the core concepts, it has laid a solid foundation for the discussions in the following chapters. In the upcoming chapters, this study will apply this theoretical framework to diagnose real-world problems and, on this basis, carry out strategic positioning and pathway construction.

3. The Status Quo, Needs, and Challenges of English Teaching in Sino-African TVET Cooperation

Under the guidance of the theoretical framework constructed in Chapter 2, this chapter aims to diagnose the “as-is” state of English language teaching in Sino-African TVET cooperation. This chapter will first depict the macro landscape and main models of Sino-African TVET cooperation to clarify the context of our discussion. Subsequently, using the needs analysis method from ESP theory, this chapter will delve into the specific needs for English proficiency from the perspectives of various stakeholders, including African trainees, Chinese instructors, and partner enterprises. Finally, this chapter will systematically summarize the core dilemmas and challenges currently faced in English language teaching at the levels of teaching staff, textbooks, pedagogy, and policy.

3.1. The Macro Landscape and Main Models of Sino-African TVET Cooperation

Sino-African TVET cooperation is not monolithic but presents a multi-modal and multi-level development trend. Its scale has rapidly expanded under the BRI. As of early 2024, the flagship brand “Luban Workshop” alone had established 17 workshops in 15 African countries, including Egypt, Kenya, and Ethiopia (according to *Xinhua News Agency*, 2024 [10]). In addition, cooperation is mainly carried out through the following models:

1) Government-led “Luban Workshop” Model: This is currently the most well-known and systematic model. Promoted by the Chinese government, with vocational colleges in Tianjin as the main constructors, it aims to combine China’s vocational education standards, equipment, and teaching resources with the needs of partner countries, usually focusing on high-end technical fields such as industrial automation and information technology.

2) Enterprise-led “Overseas Training Center” Model: Many Chinese enterprises in Africa have established training centers to meet their own project operation and localization development needs. For example, Huawei’s “ICT Academy” project, promoted globally, has cooperated with hundreds of African universities to cultivate local ICT talent. This type of model is highly goal-oriented and directly serves the needs of the industrial chain.

3) Institution-to-institution Cooperative Program Model: A

large number of Chinese and African vocational colleges have carried out cooperative education, teacher-student exchanges, and curriculum sharing projects in forms such as “2+1” through cooperation agreements. This type of cooperation is more flexible, but the quality and standards are also more varied.

These three models have different focuses, but together they form a complex cooperation network, which in turn generates diverse and highly contextualized language needs.

3.2. The Actual Role and Diverse Needs of English Teaching in Cooperation

According to ESP theory, effective language teaching begins with a precise analysis of needs. In various Sino-African TVET cooperation projects, the actual role of English has far exceeded that of a foreign language course, becoming an indispensable tool for completing professional tasks. The needs of various stakeholders show significant differentiation.

3.2.1. The Needs of African Trainees: Centered on “Vocational Empowerment.”

The fundamental motivation for African trainees to learn English is not to pass a general language test, but to master a technology that can bring better employment prospects. Their needs are highly focused on vocational scenarios. For example, a trainee studying industrial robotics at an Ethiopian Luban Workshop needs to be able to read English operation manuals and software interfaces, understand and execute complex instructions given by Chinese instructors in English, and be able to describe equipment failures and participate in team discussions in English. A trainee from the Kenya Railway Training Institute, for instance, links English to responsibility and safety: “My goal is to become a train dispatcher. All operating procedures and emergency plans are in English. One wrong word could lead to a disaster. So for us, English is a matter of life and death.” As a student receiving training at the Machakos University Luban Workshop in Kenya said, “Here, the instructor guides me in English, which is the reason for my technological leap” (quoted from a China Daily interview with African students in 2024). These firsthand accounts from learners confirm that their needs are for functional, task-oriented, and highly profession-bound English for Vocational Purposes (EVP).

3.2.2. The Needs of Chinese Instructors: Centered on “Effective Teaching.”

The vast majority of Chinese instructors dispatched to Africa are technical experts in their professional fields, not language education experts. Their core task is to impart professional skills, and English is the medium of instruction (EMI) to achieve this goal. However, they generally face the great challenge of explaining complex abstract concepts in a non-native language. What they need is not profound literary literacy, but the ability to conduct classroom management, technical explanations, safety warnings, and practical guidance in a clear and accurate manner. An instructor teaching industrial robotics at an Ethiopian Luban Workshop admitted in an interview: “I can perfectly demonstrate the movements of this robotic arm, but it’s a nightmare for me to explain the underlying kinematics algorithm in English. I know how to say it in Chinese, but it takes too much time to find the accurate English equivalent that students can understand. I am a robotics expert, not a linguist.” Li and Xue’s [1] research on the Luban Workshop model also implicitly points out the pressure faced by Chinese instructors

in cross-cultural teaching adaptation, with language being the core element.

3.2.3. The Needs of Partner Enterprises and Local Industries: Centered on “Seamless Integration.”

For companies like Huawei and China Road and Bridge Corporation operating in Africa, they expect graduates from cooperation projects to be “plug-and-play.” This means that employees must have not only technical skills but also the ability to communicate effectively in a cross-cultural team. Enterprises need employees who can understand English work instructions, participate in English safety training, and collaborate with Chinese and other international colleagues. A Chinese line manager at the Kenya Railways Corporation mentioned in an interview: “The graduates we recruit are technically good. But the problem lies in teamwork and work reporting. Our work instructions, daily briefings, and safety meetings are all conducted in English. We need employees who can not only ‘do’ but also ‘speak’ and ‘write.’ If a graduate cannot understand a technical update notice in English, or cannot clearly report a fault, his value is greatly diminished.” This is consistent with the findings of Cui and Liu’s [7] research on the language service needs of BRI enterprises, which shows that companies most value employees’ ability to meet the actual needs of the job with functional foreign language communication skills. Therefore, the needs of the industry are result-oriented and emphasize application and output.

3.3. Core Dilemmas and Challenges Facing Current English Language Teaching

Based on the above needs analysis, current English language teaching practices in Sino-African TVET cooperation are misaligned and challenging at the levels of teaching staff, textbooks, pedagogy, and policy.

3.3.1. The “Dual Dilemma” of Teaching Staff

This is a structural problem. On the one hand, Chinese professional instructors “know the profession but lack language teaching skills.” They are technical experts but have not received systematic EMI pedagogical training, making it difficult for them to organize teaching effectively in English. On the other hand, local African English teachers “know the language but lack professional knowledge.” They understand English teaching methodology but know little about highly specialized fields like industrial automation and cloud computing, and cannot teach ESP/EVP courses that are closely integrated with professional content. This “two-skins” phenomenon in teaching staff leads to a serious disconnect between language learning and professional learning. This phenomenon clearly reveals that in the non-traditional EMI context of “South-South cooperation,” the lack of a systematic teacher development system forces individual teachers to bear a huge cognitive load and teaching role conflicts, which is one of the core issues of concern in EMI theory. A local university English teacher collaborating with an Ethiopian Luban Workshop helplessly stated during an exchange: “The college asked me to help these students improve their ‘professional English.’ I can teach grammar and writing. But when students ask me the difference between an ‘AC servo motor’ and a ‘DC stepper motor,’ I can’t answer at all. I have never seen these devices. There is a wall between my English and their engineering.”

3.3.2. The “Maladaptation” of Textbooks and Resources

High-quality localized textbooks are key to teaching

success, but this is currently a major shortcoming in the cooperation. Existing textbooks or resources mainly have two types of problems: one is the direct translation or copying of domestic textbooks, where the cases, contexts, and even units of measurement are disconnected from the local reality in Africa, making it difficult for trainees to resonate with and effectively understand the content. The other is the use of general “Business English” or “General English” textbooks, which are broad in content and cannot meet the vocabulary, sentence patterns, and discourse needs of specific technical fields. During an analysis of the course materials at the Kenya Railway Training Institute, it was found that a chapter in its “Railway Operation Safety” module detailed “how to deal with line conditions in heavy snow and freezing weather,” with a large number of cases cited from practices in Northeast China. For trainees in Nairobi, located near the equator, the practical relevance of such content is extremely low. This typically reflects the cultural and geographical “maladaptation” caused by the direct translation or copying of textbooks. The study by Ngware et al. [3] on TVET projects in Kenya also clearly points out that the failure to fully localize curricula and teaching resources is one of the core challenges faced by the projects. The root of this “maladaptation” lies in the violation of the core principle of ESP theory that “needs determine content,” failing to effectively map the learners’ real world into the teaching materials.

3.3.3. The “Misalignment” of Pedagogy and Assessment

In practice, due to the lack of suitable teaching staff and textbooks, English language teaching often degenerates into a teacher-centered traditional model focusing on grammar and vocabulary explanation. This teaching method makes it difficult to cultivate trainees’ ability to solve problems in real work scenarios. Correspondingly, assessment methods also often adopt traditional written tests, examining language knowledge points rather than the ability of trainees to use English to complete a simulated vocational task (Task-based Assessment). This deviation from the ultimate vocational needs in teaching and learning, which essentially confuses the training objectives and evaluation standards of “General English Proficiency” (EGP) and “English for Specific Purposes” (ESP), fails to effectively serve the ultimate goal of “improving productivity” emphasized by human capital theory, leading to the phenomenon of “high scores but low ability” or “learning that cannot be applied.”

3.3.4. The “Strategic Void” in Policy and Management

This is the most fundamental challenge. In current top-level design documents such as the FOCAC action plans, although “human resource development” and “capacity building” are repeatedly emphasized, there is a lack of clear and specific policy statements and resource allocation for “language capacity building,” which is a key supporting link to achieve the aforementioned goals. Language teaching is often regarded as a temporary, remedial measure at the project implementation level, rather than a strategic element considered comprehensively at the beginning of project design. A Chinese project manager of a Luban Workshop admitted in an interview: “To be honest, when we initially designed the project, the KPIs were how many students to train and how much equipment to install. The budget for ‘language support’ was a small amount added at the last minute. As for what kind of language support, for how long, and to what standard, there was no unified guidance from above. We were all crossing the river by feeling the stones. It

should have been a core component from the project’s inception.” This voice from management provides the most direct footnote to the “strategic void” in language teaching in the current cooperation and also reflects the absence of language planning theory in project practice, directly leading to a series of practical dilemmas at the levels of teaching staff, textbooks, and pedagogy mentioned above.

The analysis in this chapter shows that there is a significant gap between the current state of English language teaching in Sino-African TVET cooperation and the urgent needs of various stakeholders. Current practices are mostly fragmented, passive, and lack systematic planning. The interconnected dilemmas at the four levels of teaching staff, textbooks, pedagogy, and policy together constitute the main obstacles constraining the quality and sustainability of cooperation projects. This clear “problem diagnosis” lays a solid and urgent practical foundation for constructing a new and forward-looking strategic positioning for English language teaching in the next chapter.

4. Constructing the Strategic Positioning of English Teaching in Sino-African TVET Cooperation

The analysis in Chapter 3 reveals the widespread “strategic void” in current English language teaching in Sino-African TVET cooperation and the series of practical dilemmas it triggers. Treating English language teaching merely as an isolated, passive auxiliary link can no longer meet the intrinsic requirements of deepening cooperation and high-quality development. Therefore, this chapter aims to answer the second core research question: from a strategic height, what role should English language teaching play, what functions should it achieve, and what goals should it accomplish? This chapter will be based on the basic principles of demand-orientation, integration and symbiosis, cultural adaptation, and sustainable development, and from the two dimensions of functional positioning and target positioning, construct a systematic strategic positioning framework aimed at upgrading English language teaching from an “auxiliary tool” to a “core empowerment system.”

4.1. Basic Principles of Strategic Positioning

Before constructing a new strategic positioning, its guiding principles must be established. These principles are a direct response to the problems revealed in Chapter 3 and are also the fundamental guarantee for the scientific and feasible nature of the new positioning.

1) The Demand-Oriented Principle: This is the core essence of ESP theory. All activities of English language teaching—from goal setting to content selection, from teaching methods to outcome evaluation—must originate from and serve the real needs of key stakeholders such as African trainees, Chinese instructors, and partner enterprises. The “one-size-fits-all” general English teaching model must be abandoned in favor of a highly customized English for Vocational Purposes (EVP) path.

2) The Integration and Symbiosis Principle: English language teaching should no longer be an “island” separate from professional courses. It must be deeply integrated with professional skills training, forming a symbiotic relationship where “language empowers skills, and skills carry language.” Language is the tool for learning professional knowledge, and professional content provides the most authentic and effective

context for language learning.

3) The Cultural Adaptability Principle: Drawing on South-South cooperation theory, the strategic positioning must fully respect the local culture, society, and educational ecology of Africa, and promote the localization and adaptation of teaching content and methods. At the same time, it should also be committed to promoting two-way cultural understanding between Chinese and African teachers and students, and cultivating world citizens who can work effectively in a cross-cultural environment.

4) The Sustainability Principle: Drawing on human capital theory, the strategic positioning should be long-term, aiming at cultivating Africa's local "hematopoietic capacity" as the ultimate goal. This means it should not only cultivate workers who can operate equipment but also focus on cultivating local teaching staff and management personnel who can learn independently, innovate, and even undertake training tasks in the future, thereby achieving the sustainable development of the cooperation.

Table 1 provides a systematic demonstration of how the principles and functions proposed in Chapter 4 directly address the core problems identified in Chapter 3's research findings.

Table 1. Logical Mapping Framework of Practical Dilemmas and Strategic Positioning

Problems Identified in Chapter 3	Corresponding Principles/Functions in Chapter 4
Dual Dilemma of Teaching Staff	Integration & Symbiosis Principle; Sustainability Principle
Maladaptation of Textbooks & Resources	Demand-Oriented Principle; Cultural Adaptability Principle
Misalignment of Pedagogy & Assessment	Demand-Oriented Principle; "Cognitive Scaffold" & "Practical Bridge" Functions
Strategic Void in Policy & Management	The Construction of the Entire Strategic Positioning Framework

4.2. Functional Positioning: From "Auxiliary Tool" to "Core Empowerment System"

Based on the above principles, this study advocates that the positioning of English language teaching must undergo a fundamental paradigm shift: from a passive, remedial "Auxiliary Tool" to an active, integrated "Core Empowerment System" that runs through the entire cycle of cooperation projects. This system has three core functions:

4.2.1. As a "Cognitive Scaffold" for Technical Skill Acquisition

This is its most basic and core function. In this positioning, English is no longer just a medium for transmitting information, but a "cognitive scaffold" for trainees to construct their professional knowledge system. The focus of language teaching is to help trainees master the core vocabulary, conceptual framework, discourse structure, and logical relationships of the professional field. This functional positioning is a direct embodiment of constructivist learning theory and the core idea of ESP that "language serves content," emphasizing the instrumental role of language in constructing a professional knowledge system. For example, when teaching "circuit diagrams," the focus of English teaching is

to teach trainees how to read and use key language structures such as "If..., then...", "parallel connection," and "voltage drop" to describe circuit logic, rather than daily conversation. This requires that language teaching must be embedded in professional content, achieving the synchronization of language learning and thinking development.

4.2.2. As a "Practical Bridge" for Intercultural Communication

This functional positioning transcends the purely technical language category and focuses on real communication skills in the workplace. This functional positioning directly applies the enlightenment of EMI and ELF theories, shifting the teaching goal from the pursuit of "linguistic accuracy" to the pursuit of "communicative effectiveness," emphasizing the application value of language in real, multicultural work scenarios. The teaching content should include: how to politely ask questions and request clarification from Chinese instructors, how to give clear work reports, how to express disagreement in teamwork, and how to understand and comply with English safety signs. This requires that the teaching method must be task-oriented, building a bridge between the classroom and the factory through a large number of simulated work scene practice activities.

4.2.3. As a "Value-Adding Accelerator" for Career Development

This functional positioning views English proficiency as an important value-added part of the core human capital of African trainees, providing continuous momentum for their long-term career development. This functional positioning profoundly responds to the core essence of human capital theory, viewing language education as a strategic investment that can bring long-term returns, and viewing English proficiency as an important value-added part of the core human capital of African trainees, directly related to the value-added of individual and even national human capital. Graduates with solid professional English skills can not only adapt quickly when they first enter the workplace but also have the potential for long-term development. They can independently read technical literature at the forefront of the international industry, participate in international online courses and certification exams, and communicate with peers around the world, thereby providing continuous momentum for their growth from an ordinary technician to a technical supervisor, project manager, or even an international entrepreneur. This positioning truly connects language teaching with the lifelong development of trainees and the accumulation of human capital in African countries.

4.3. Target Positioning: Constructing a Tiered and Progressive Target System

If functional positioning answers the question of "what to do," then target positioning answers the question of "to what extent." To ensure the measurability of the strategy, this study constructs a tiered and progressive target system:

Short-term goal (project implementation level): Ensuring Effective and Safe Instruction. The core is to remove basic language barriers, ensure that African trainees can understand classroom lectures and workshop instructions, and that Chinese instructors can successfully convey knowledge and skills, ensuring that teaching activities can be carried out safely and effectively.

Medium-term goal (talent cultivation level): Cultivating

Qualified Local Technical Talent. The core is to enable graduates to not only meet the standards in technical operations but also to meet the employment standards of partner enterprises and local industries in communication and collaboration, achieving a seamless transition from “graduation to employment.”

Long-term goal (strategic development level): Empowering Localization and Sustainable Development. The core is to cultivate a group of local elites who can lead industrial development. They are not only users of technology but also future innovators, managers, and trainers, ultimately forming a local “hematopoietic” mechanism to serve the long-term vision of Sino-African cooperation and the construction of a community with a shared future for mankind.

This chapter has completed the key step from “problem diagnosis” to “blueprint design” by systematically constructing the strategic positioning of English language teaching. The study clearly proposes that English language teaching must be upgraded from a marginal “auxiliary tool” to a central “core empowerment system.” This new positioning is guided by four basic principles, defined by three core functions as a “cognitive scaffold,” a “practical bridge,” and a “value-adding accelerator,” and driven by a tiered and progressive target system from short-term to long-term. This brand-new strategic positioning framework not only directly responds to the various dilemmas revealed in Chapter 3 but also provides a clear, theoretically deep, and practically valuable top-level guide for the design of specific implementation pathways in the next chapter.

5. The Implementation Pathways for the Strategic Positioning of English Teaching

If Chapter 4 has laid out the strategic blueprint for upgrading English language teaching in Sino-African TVET cooperation from an “auxiliary tool” to a “core empowerment system,” then the core task of this chapter is to pave the practical path to this goal. The realization of the blueprint depends on scientific, systematic, and coordinated implementation strategies. This chapter will follow a logical progression of “top-level design—meso-level execution—micro-level operation,” and from the macro (national policy), meso (institutional project), and micro (classroom teaching) levels, construct an interconnected and mutually supportive implementation pathway system, aiming to truly implement the strategic positioning of the previous chapter.

5.1. Macro Level: National Top-Level Design and Policy Supply Pathways

The macro-level pathway aims to fundamentally solve the “strategic void” problem found in Chapter 3, and through national-level intervention, provide direction, standards, and resource guarantees for the reform of the entire system, which is the cornerstone of all changes.

5.1.1. Integrating Language Capacity Building into Top-Level Cooperation Design

To fundamentally reverse the passive and marginal status of current language teaching, it must be elevated to the height of national cooperation strategy. This requires the explicit addition of a special clause for a “Vocational Language Capacity Initiative” in future FOCAC action plans, bilateral educational cooperation agreements between China and African partner countries, and even the programmatic

documents of the BRI education action. The significance of this measure lies in achieving a fundamental shift from “passive response” to “active planning.” This plan should not be a vague call but should contain three operational core elements: first, setting clear goals, that is, listing the “vocational English communicative competence” level of trainees (which can be measured by a subsequently established certification system) alongside technical skill levels as a core key performance indicator (KPI) for project success; second, providing special budget support, with a dedicated and sufficient budget in each cooperation project’s funds to support key links such as teacher training, localized textbook development, and teaching resource library construction, changing the current predicament of “last-minute additions”; third, defining clear rights and responsibilities, clarifying the respective responsibilities of competent departments such as commerce and education and project implementers in language capacity building, forming a policy synergy.

5.1.2. Establishing a Sino-African EVP Teaching Standard and Certification System

To systematically solve the problems of “target deviation” in teaching content and “standard absence” in the evaluation system, it is crucial to establish a set of authoritative standards recognized by multiple parties. It is recommended that the education authorities of China and Africa take the lead in organizing a “Sino-African Vocational English Standards Committee” composed of applied linguistics experts, relevant industry technical experts, and representatives of Chinese-funded enterprises in Africa. The core task of this committee is to cooperatively develop a “Sino-African Vocational English Proficiency Standards.” This standard is not a general language proficiency framework, but a “competency-based” framework closely linked to specific vocational fields (such as information and communication, transportation, and intelligent manufacturing). It should detail the listening, speaking, reading, and writing skills required by practitioners at different levels, especially the language skills to complete specific work tasks, such as “being able to independently read and understand English equipment safety operation procedures” and “being able to use specific sentence patterns to verbally report general equipment failures.” Based on this standard, a corresponding vocational English proficiency certification exam can be further developed. The value of this certificate lies in its applicability, and it must be actively promoted to gain wide recognition from participating Chinese-funded enterprises and local industry associations, making it a “hard currency” for trainees in job hunting, thereby establishing an effective incentive and evaluation bridge between learners and the labor market.

5.1.3. Establishing a Multilateral Platform for Teacher Training and Resource Development

To fundamentally crack the “dual dilemma” of teaching staff and the “maladaptation” of textbooks, a centralized, shared solution is needed. It is recommended to establish a “Sino-African Vocational Language Education Resource Center” based on existing cooperation mechanisms (such as the Sino-African Vocational Education Alliance). This center is best presented as an online platform to maximize coverage and accessibility. Its core functions should include: first, systematic teacher training, regularly holding systematic EMI pedagogical training for Chinese professional instructors, with content covering strategies for simplifying complex concepts in English, cross-cultural classroom management

skills, and formative assessment methods; at the same time, organizing online seminars on specific industry knowledge for local African English teachers to help them make up for their subject knowledge shortcomings. Second, localized resource development and aggregation, organizing efforts to develop and aggregate a large number of digital, industry-specific vocational English teaching cases, videos, glossaries, and simulated tasks adapted to the local African context, for free use by all cooperating institutions. Third, building a teaching and research community, promoting experience exchange and collaborative research among relevant teachers in Sino-African vocational colleges through forums, workshops, and other forms, forming a sustainable professional growth ecosystem.

5.2. Meso Level: Institutional Project Management and Curriculum System Construction Pathways

The meso level focuses on vocational colleges and cooperation projects as the implementing bodies, aiming to translate macro policies into specific, innovative teaching and management practices.

5.2.1. Constructing a “Trinity” Modular and Integrated Curriculum

To implement the “integration and symbiosis principle” and the “cognitive scaffold” function proposed in Chapter 4, the design of the curriculum system must undergo a thorough revolution, that is, breaking down the strict barriers between language courses and professional courses. We advocate for designing a “professional skills + vocational English + cross-cultural competence” trinity modular and integrated curriculum. In this curriculum model, language and culture are no longer independent additional courses, but are embedded as organic elements throughout the entire process of professional skills learning. For example, in a four-week “car engine maintenance” teaching module, the course objective is not only for trainees to master the disassembly and assembly techniques of the engine but also to simultaneously set language objectives (such as mastering the English names of engine parts, being able to describe their functions in English, and being able to read relevant chapters of English maintenance manuals) and cultural objectives (such as understanding the differences in master-apprentice relationships and time concepts between China and Africa). Weekly teaching activities are centered on a real maintenance task, and language learning occurs naturally in the process of completing the task, thereby truly achieving “learning by doing and for doing.”

5.2.2. Implementing a Dynamic Curriculum Development Mechanism Starting with Needs Analysis

To ensure the implementation of the “demand-oriented” principle, it is recommended that ESP Needs Analysis be a standardized, pre-emptive process for all cooperation projects, rather than a post-hoc remedial measure. This mechanism should be dynamic and cyclical. In the project design phase, institutions must conduct in-depth research on the real language needs of local partner enterprises, industry associations, and potential trainees through questionnaires, interviews, and on-site observations, and form a detailed needs analysis report. The curriculum content and teaching objectives should be strictly developed based on this report. More importantly, a yearly feedback and update mechanism

should be established. Each year, through graduate tracking surveys and employer satisfaction interviews, feedback data on the effectiveness of the curriculum should be collected, and combined with the latest developments in industrial technology, the curriculum content, teaching cases, and training tasks should be dynamically adjusted and iterated to ensure that talent cultivation always keeps pace with industrial needs.

5.2.3. Establishing an Institution-Enterprise Collaborative System for Practical Teaching and Assessment

To effectively achieve the “practical bridge” function, the real work scenarios of enterprises must be deeply integrated into the teaching and evaluation system to build a truly integrated ecosystem of industry and education. This requires promoting vocational colleges and Chinese-funded enterprises in Africa to establish institutionalized deep cooperation relationships, the connotation of which is far more than just providing internship positions. In the practical teaching link, it should be normalized to invite enterprise engineers and technical backbones into the classroom as part-time instructors, teaching cutting-edge technical cases and industry norms; at the same time, trainees should be organized to enter enterprises, not just for simple visits, but to participate in “situated internships” led by enterprise mentors, exercising language and skills in a real work process and team environment. In the outcome evaluation link, the traditional final written test focusing on memorizing knowledge points must be reformed, and “Performance Assessment” should be vigorously introduced. For example, a comprehensive task simplified from a real enterprise project (such as “designing an English daily maintenance plan for a certain section of a line”) can be used as a graduation assessment, and an evaluation team composed of mentors from both the institution and the enterprise will comprehensively evaluate the comprehensive abilities of trainees in solving complex problems, such as technical application, language expression, teamwork, and problem-solving, according to clear scoring rubrics.

5.3. Micro Level: Teacher Professional Development and Classroom Teaching Innovation Pathways

The micro level focuses on the classroom, the core arena where teaching activities take place, and its success ultimately depends on the improvement of teachers’ abilities and the innovation of teaching methods.

5.3.1. Implementing a “Dual-Teacher Empowerment” Professional Development Plan

To systematically solve the “dual dilemma” of teaching staff, it is necessary to empower both types of teachers in a targeted manner. For Chinese professional instructors, the focus of empowerment is on EMI pedagogy. Institutions should provide systematic pre-service and in-service training to help them master various strategies for effective teaching in English, such as how to use scaffolding questions to guide students’ thinking, how to use diagrams, metaphors, and other means to simplify complex professional concepts, and how to design non-verbal formative assessment tools to evaluate learning outcomes. For local African English teachers, the focus of empowerment is on Content Knowledge. Conditions should be actively created to arrange for them to regularly go deep into partner enterprises or the counterpart majors of

Chinese institutions for short-term “immersion” learning for several weeks, to help them quickly familiarize themselves with the background knowledge and core terminology of the professional field, so that they have the ability and confidence to be competent in EVP teaching. On this basis, actively exploring a new model of “Team Teaching,” where a Chinese professional instructor and a local language teacher prepare and teach lessons together, is the best way to leverage their respective strengths and achieve a 1+1>2 effect.

5.3.2. Promoting Task-Based and Interactive Pedagogies

To effectively cultivate trainees’ real communication skills in the workplace, classroom teaching must complete a revolution from “knowledge transmission” to “ability cultivation.” This means vigorously promoting interactive teaching methods represented by Task-Based Language Teaching (TBLT) and Project-Based Learning (PBL). Unlike traditional teaching methods that focus on explaining grammar and vocabulary, TBLT/PBL classrooms are organized around a meaningful, quasi-professional task or project. For example, teachers can design tasks such as “preparing materials according to an English purchase order,” “troubleshooting a simulated equipment failure in a group and writing an English report,” or “designing English commentary for a product presentation.” In the process of completing these tasks, trainees will actively and purposefully seek, learn, and use relevant language knowledge and skills to solve practical problems. This “learning by doing” approach can not only greatly stimulate learning motivation but also ensure that the language learned is directly related to future work scenarios, thereby achieving the goal of applying what has been learned.

5.3.3. Leveraging Digital Technology and Open-Source Resources

In an environment with relatively scarce teaching resources, making good use of digital technology is an important way to achieve leapfrog development. This can not only make up for the lack of physical resources but also create possibilities for achieving personalized and immersive learning. Specific application scenarios can include: first, using online learning platforms (such as Moodle) to carry out blended learning, placing standardized knowledge explanations, vocabulary learning, and other content online for students to preview before class or review after class, while dedicating precious classroom time to interaction and practice. Second, introducing VR/AR virtual simulation training software, for example, allowing trainees to perform high-risk or high-cost equipment operations such as virtual welding and virtual circuit troubleshooting in a fully immersive English virtual environment, which is both safe and efficient. Third, guiding trainees to make good use of the massive global open educational resources (OER) to cultivate their autonomous learning ability. Teachers can guide students on how to use the websites of international industry associations, professional technical channels on YouTube, and English product manuals and teaching videos released by top global equipment manufacturers to broaden their horizons and track the forefront of the industry.

This chapter has constructed a systematic implementation pathway from the macro to the micro level, which is interconnected and mutually supportive. The policy supply at the macro level provides direction and guarantee for the reform; the institutional innovation at the meso level transforms the blueprint into a specific curriculum and management model; and the teaching revolution at the micro

level ensures that the strategic intention is ultimately realized in the classroom. This complete set of pathway designs aims to systematically crack the various dilemmas revealed in Chapter 3 and to provide a comprehensive, specific, and feasible action roadmap for turning the “core empowerment system,” the strategic positioning proposed in Chapter 4, from an ideal into a reality.

6. Conclusion, Recommendations, and Prospects

Through the four research stages of theoretical construction, realistic diagnosis, strategic positioning, and pathway design, this study has completed a comprehensive investigation of the English language teaching issues in Sino-African TVET cooperation. This chapter will systematically summarize the research process and core findings, and on this basis, construct a policy recommendation framework to promote the quality improvement of English language teaching in Sino-African TVET cooperation. At the same time, this study will also reflect on the limitations of the research process and propose possible future research expansion directions to provide academic reference for subsequent related research.

6.1. Summary of Key Findings

This study, focusing on the strategic positioning and implementation pathways of English language teaching in Sino-African TVET cooperation from the perspective of the BRI, has drawn the following three core conclusions through multi-level analysis:

1) On the practical level: Current English language teaching suffers from a significant “strategic-praxis misalignment” and “systemic failure.” The research finds (Chapter 3) that current English teaching in the cooperation is generally passive and fragmented, positioned merely as a remedial “auxiliary tool.” This positioning leads to four interrelated practical dilemmas: the “dual dilemma” of teaching staff, the “maladaptation” of textbooks, the “misalignment” of pedagogy, and the “strategic void” in policy. This indicates that under the existing model, English language teaching falls far short of meeting the diverse, functional needs of key stakeholders such as African trainees, Chinese instructors, and partner enterprises, becoming a core bottleneck constraining the deepening development of cooperation projects.

2) On the strategic level: English language teaching must achieve a paradigm shift towards a “core empowerment system.” The research constructs (Chapter 4) a new strategic positioning framework. This framework advocates that English language teaching must transform from a passive auxiliary role to an active, project-wide “core empowerment system.” This system is guided by four principles (demand-orientation, integration and symbiosis, cultural adaptation, and sustainability) and has three core functions: as a “cognitive scaffold” for technical skill acquisition, a “practical bridge” for intercultural communication, and a “value-adding accelerator” for career development. This new positioning provides a fundamental cognitive shift and top-level design blueprint for resolving practical dilemmas.

3) On the implementation level: The realization of the new strategy requires synergistic and linked pathways at the macro, meso, and micro levels. The research designs (Chapter 5) a set of implementation pathways to translate the strategic blueprint into real action. This system emphasizes that the

success of the reform depends on the synergistic efforts of three levels: the macro level requires national top-level design, incorporating language capacity building into strategic planning and providing policy and standard supply; the meso level requires institutional innovation by project institutions, constructing a “trinity” integrated curriculum and an institution-enterprise collaborative mechanism; and the micro level requires the ultimate implementation of the strategic intention in the classroom through teacher development and pedagogical innovation.

6.2. Policy Recommendations and Practical Implications

Based on the above conclusions, this study provides the following actionable recommendations for different stakeholders:

6.2.1. Recommendations for National Decision-Making Departments

1) Strengthen top-level design and achieve policy integration: It is recommended that in future FOCAC action plans and related bilateral cooperation agreements, a “Vocational Language Capacity Initiative” be explicitly listed as a special item, and be given funding and policy support, so that it is planned, deployed, and assessed together with skills training programs.

2) Promote standard construction and lead teaching reform: Take the lead in organizing Chinese and African experts to launch the development and certification of “Sino-African Vocational English Proficiency Standards” to provide clear guidance for teaching and to provide value proof for learning outcomes.

3) Build a sharing platform and concentrate high-quality resources: Support the establishment of a national-level “Sino-African Vocational Language Education Resource Center” online platform to coordinate teacher training and vigorously promote the co-construction and sharing of digital teaching resources adapted to the local needs of Africa.

6.2.2. Recommendations for Vocational Colleges and Project Implementers

1) Deepen curriculum reform and promote integrated teaching: Make “ESP needs analysis” a necessary step for project initiation. Resolutely break down the barriers between language courses and professional courses, and vigorously develop a modular curriculum of “professional skills + vocational English + cross-cultural competence.”

2) Innovate teacher models and empower teaching subjects: Establish a regular teacher development mechanism, systematically carry out EMI pedagogical training for Chinese teachers, provide opportunities for African teachers to conduct research in professional fields, and actively explore a new model of “team teaching” by Chinese and African teachers.

3) Deepen institution-enterprise cooperation and achieve industry-education synergy: Establish institutionalized partnerships with enterprises, not limited to internships, but also to fully introduce enterprise needs, enterprise experts, and real enterprise projects into curriculum development, the teaching process, and outcome evaluation.

6.3. Limitations and Prospects for Future Research

This study strives for rigor, but there are still some limitations, which also point the way for future research.

6.3.1. Limitations of the Study

First, in terms of empirical scope, this study mainly adopts a qualitative case study method. Although it provides in-depth insights, the selection of cases is limited by practical conditions, currently focusing on only two typical projects in two countries. Therefore, the generalizability of the research conclusions to all models and countries of Sino-African TVET cooperation (such as French-speaking and Portuguese-speaking regions) needs to be tested by a wider range and more diverse empirical research. Second, in terms of research perspective, this study mainly approaches from a macro and meso perspective of strategy, policy, and education, with a focus on system construction. It fails to conduct a sufficiently in-depth ethnographic exploration of more micro-level sociological and anthropological issues in the cooperation field, such as the mechanism of informal learning, cross-cultural teacher-student power relations, and the dynamic construction process of learners’ language and identity. Finally, in terms of language types, this study focuses on English, but French, Portuguese, and other languages are also important official and working languages in Africa. The language issues in Sino-African cooperation in the context of these languages are also worthy of attention, but this is beyond the scope of this study.

6.3.2. Prospects for Future Research

Based on the above limitations, future research can be further deepened in the following aspects. First, large-scale quantitative research can be carried out. On the basis of the qualitative research in this paper, mature scales can be developed to conduct large-scale questionnaire surveys on the effectiveness of language teaching in Sino-African TVET cooperation, and statistical methods can be used to deeply analyze the correlation and even causal relationship between different teaching intervention measures (such as integrated courses and EMI training) and key outcome variables such as trainee employment rates, salary levels, and job satisfaction. Second, long-term tracking research can be conducted. A longitudinal tracking study of the graduates of cooperation projects for three to five years can be conducted to examine the development trajectory of their language and technical skills in a real workplace environment, and the long-term impact of this comprehensive ability on their career promotion, job transfer, and lifelong learning. Third, multi-language and multi-country comparative research can be expanded. Research on the language issues in Sino-African cooperation projects in French-speaking and Portuguese-speaking African countries can be carried out, and a systematic comparison with the situation in English-speaking regions can be made to analyze the impact of different colonial histories, language policies, and education systems on cooperation models and challenges, thereby constructing a more universally explanatory theoretical framework. Finally, micro-qualitative research focusing on learners can be deepened. Using ethnographic, narrative inquiry, and other methods, a more in-depth exploration of the subjective experiences, motivational changes, learning strategies, and identity construction processes of African trainees in this unique cross-cultural learning context can be conducted, thereby providing more delicate and humanistic enlightenment for teaching practice.

As an important medium for technology and cultural exchange, language capacity building plays a key role in the comprehensive strategic cooperative partnership between China and Africa. This study believes that upgrading English

language teaching in TVET cooperation from an auxiliary position to a strategic height is not only a practical need to break through the current cooperation bottleneck but also a long-term consideration to deepen Sino-African people-to-people exchanges and promote the construction of a community with a shared future. Although this study has conducted a systematic exploration in this field, there are still many areas for in-depth research. It is hoped that subsequent research can further expand on this basis to provide more perfect theoretical support and practical guidance for the sustainable development of Sino-African vocational education cooperation.

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