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Empowering Gender Equity in STEM Education: Skills for Today and Tomorrow

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Abstract

Education is a cornerstone of human development, yet many girls and women still face barriers to access. Scholars in human resource development stress that inclusive education is essential for social, political, and economic progress. This article argues that equitable access is not only vital for development but also a constitutional right. Despite progress, true gender equity in education remains out of reach. Using a social justice lens, the article calls for inclusive learning environments that overcome gender and cultural barriers. It draws on the Capabilities Approach, which emphasizes enabling individuals to pursue meaningful lives, and Social Cognitive Career Theory, which explores how socio-economic and cognitive factors shape educational outcomes. Persistent challenges—such as sexism, patriarchy, poverty, and gender-based violence—continue to limit opportunities for women. The article uses secondary data to highlight these issues and offers strategies for policymakers and institutions to create more equitable and transformative higher education systems.

Keywords: gender inequality, access, equitable, higher education, science education

1. Conceptualizing the Gaping Gaps in Science Education

Broadly, science education encapsulates learning areas/fields such as Science, Technology, Engineering and Mathematics- STEM. Smith and Monday (2019) argue that the gender skew in STEM education denies the world the potential to explore and benefit from a myriad of skills that women scientists can offer in various science fields. Globally, a case has been made for women and girls' under representation in science education, and profession. This is documented in United Nation Development Programme [UNDP] report of (2024) and, the United Nations International Children's Emergency Fund [UNICEF], (2023). American government Report on "STEM" alludes to the fact that science education is categorised as follows- [the physical, biological, and agricultural sciences]; [computer and information sciences]; [engineering and engineering technologies]; and [mathematics]. This clustering is entrenched in most education systems across the globe. In general, STEM fields are widely regarded as critical to developing national and global economies (National Academy of Sciences, Committee on Science, Engineering & Public Policy, 2007; Ministry of Education -National Plan, 2001). The Academy of Science of South Africa- Assaf recognises and aligns with this view. ASSAf was formed in response to the need for an academy of science congruent with the dawn of democracy in South Africa. Emblematic of the underrepresentation of certain groups of people in accessing and succeeding in STEM fields in South Africa- [girls and women included], ASSAf is geared towards addressing common ground of scientific knowledge and activity. ASSAf endeavours to remove barriers between people and obstacles to full development of their intellectual capacity.

Calls to strengthen and seal the leaking gender pipeline in order for women and men to be competent and favourably in global economies are gaining momentum internationally. This impetus is based on the high value

that is associated with the field. We therefore align with interventions that strive for equitable access, representation and participation in science education. Due to their overall positioning in society, STEM careers are often referred to as the jobs of the future, driving innovation, social well-being, inclusive growth and sustainable development (Hill et al., 2010; UNESCO, 2021). Assumably, people in this work force are responsible for improving living standards through innovative inventions, spurring economic growth, and propelling global competitiveness. They catapult a nation's innovative capacity through their work in research and development (R&D), and in other technologically advanced activities (AAUW, 2008; America-Science and Engineering Indicators, 2022). It is further illustrated that, by including workers of all educational backgrounds and the wide variety of occupations that require significant STEM knowledge and expertise, the STEM workforce represented 23% of the total U.S. workforce in 2019. Employees in STEM fields had a higher median pay ($55,000) than non-STEM workers ($33,000). Notably, the same data showed that women are about 34% of STEM workers, representing 44% of those with a bachelor's degree or higher and 26% of those without a bachelor's degree. Wei therefore argues that it is important to include women and girls in science education on the basis of the attributes and value it embodies- none should be left behind.

In the interim, making education relevant for the 21st Century continues to occupy key national and international discourses. Educating for the 21st Century skills requires leveraging opportunities in education sector to prepare all learners and students for the workplace. Skills and capabilities for the 21st Century include deep learning, machine learning, robotics, workplace change and preparedness, expert thinking and complex communication (Luterbach & Brown, 2011). Subsequently, calls to embed creativity in technology and innovation across the curriculum are currently dominating education discourses are growing louder. Henriksen et.al (2016) argue that closing the gender gap requires these skills to be made accessible to everyone- for they are not a preserve for a few talented learners/students. Arguably, Science, Technology, Engineering and Mathematics as a male dominated field remains a priority focus area globally for higher education institutions. Although women comprise half of the global population, they are however underrepresented in the STEM fields (Ladachart & Ladachart, 2025). Ladachart's study — done in Thailand alludes to the fact that gender inequality in STEM is perpetuated through masculine dominance, lack of female agency and feminine ways of engagement.

It is notable that heightened advocacies around gender inequalities and underrepresentation in education have improved enrolments for girls and women in various tiers of education globally. However, current statistics indicate that although there are many girls in education than before, they do not get the opportunity to benefit equally from education of their choices according to UNESCO (2022). As a result, UNESCO is giving this area special attention through research, policy and capacity building. These mechanisms are aimed at empowering girls and women through education. Furthermore, the American Association of University Women Education -AAUW (2008) and Hoffman (2021) argue that, despite the progress made towards girls and women's education, there are very few women scientists and engineers. The authors worry about the gaping gender gap in STEM *there are so few women becoming scientists and engineers.* Understandably so, the worry can be linked to Simth & Monday (2019) who noted the travesty of the world missing on talents and skills that women scientists have to offer. Inconsistencies in STEM access have also been noted with countries with high gender equality levels. Conjectures from Finland, Norway and Sweden indicate that the countries lead in gender equality but, paradoxically, the STEM gap is very pronounced in these countries — which is commonly referred to as [*educational-gender-equality paradox*] (Stoet & Geary, 2018).

Trends in International Mathematics and Science Study data- [focusing on high- and middle-income countries] of 2019 of grade 8 learners concluded that more boys than girls would want to pursue a career in Mathematics or in a Science related field. When factors *like confidence and achievements* were considered, it was concluded that, a learner/student with high confidence in Mathematics and Science related fields was highly likely to enter a job in the same fields. The study further revealed that at grade 8, boys were more confident in Maths than girls. The gender differences were less pronounced in Science (Hencke et al., 2022; Wang et al., 2020). The conclusions of the TIMMS study align with Ladachart and Ladachart (2025) and Mqadi (2025) in arguing for the appropriation of the role of sociocultural ideologies in STEM teaching and learning Consistent with TIMMS findings, Bodnar et al. (2020) argues that the science identity is an antecedent to a career in STEM across gender and race- especially for boys and males. According to Mqadi (2024) and Wang et al. (2020) social cultural factor- parents and teacher; gender prejudiced curriculum material, inadequate employment for female teachers [who are roles models in STEM] contribute to low enrolment in STEM studies. Furthermore, while research has also shown the gender disparity in STEM courses; young women who are high achievers in Mathematics and Sciences to study biology, medicine or psychology majors instead of pursuing physics, mathematics and engineering courses (Bieri Buschor et al., 2014; Sax et al., 2018). This is notwithstanding Sax et al. (2018) conclusion that biological sciences is the only field that has attained gender equality in the STEM field. UNESCO (2022) maintains that the due to the gender skew in STEM, the world ends up [*Missing out on half of the world's potential*] (Smith & Monday, 2019). This has been attributed to the fact that they assess their abilities

on a lower scale than boys with the same achievement levels. It is also likely that they hold themselves to higher standards, believing that they have to be exceptional in order to succeed in these areas.

Another point of tension that exacerbates gender skewing in STEM is based on career aspirations and confidence (TIMMS, 2019; Sax et al., 2018). Data has revealed that low performing boys are more confident to pursue careers in Mathematics in comparison to low performing girls. The low aspiration of girls at this level could lead to fewer girls entering the STEM field at tertiary education level (Bieri Buschor et al., 2014; Sterling et al., 2020). It also emerged that although 99% of the female learners had enrolled for mathematics and physical science, only 32 % intended to continue with engineering studies at tertiary level (Bieri Buschor et al., 2014). Moreover, other studies have shown that parents or role models play an important role in the uptake of STEM.

Associated intersectional factors such as race, gender and self-rated math ability, which keep shifting are key indicators in determining enrolments in STEM fields. Low confidence levels towards STEM education by girls and women has been largely linked to parental and societal attitudes toward a female child being *"able" and apt* to study engineering or related courses. An excerpt from a study by Mateescu and Ionescu (2019) in schools in Johannesburg noted the following; *looks like our female engineers just "disappear."* The caveat in current survey shows a relatively bleak picture of the future of female engineers despite the fact that schools in Johannesburg area are among the best in the country. In addition, statistics from the Engineering Board of Kenya indicate that 8.4% women are registered as professionals with the Board. This statistics is supported by the view that only 3% of female students in higher education choose to do ICT, 5% choose the natural sciences, mathematics and statistics stream whereas 8% select the engineering, construction and manufacturing stream (UNESCO, 2021). It is therefore clear that there is a gaping gender gap in science education that requires filling (Akala, 2024).

2. Theoretical Underpinning of the Study

Due to the complexity involved in gendering in STEM/science education, various theories and concepts were used to explore and address Gender Inclusivity in STEM Education. The discussions were guided by the Social Cognitive Career Theory (SCCT) by Lent et al. (1994). This theory takes into account external influences like social and economic factors, as well as individual cognitive factors, when determining career choices. It suggests that external environmental factors influence career decisions by affecting self-efficacy and outcome expectations, such as believing in oneself and developing an interest in one's work. These ideas are backed by Subotnik et al., (2019), who suggest that positive interactions with the STEM environment can boost students' self-efficacy, their perceived value of specific STEM fields, and ultimately influence their career choices. Also, according to Wang et al. (2020), self-efficacy and career perception play a significant role in shaping career interests. Environmental factors encompass physical and social conditions that form the basis for an individual's livelihood. According to Mohtar et al. (2019), school education, formal education, social support, and media can all influence students' STEM self-efficacy or career perception, which then influences their interest in STEM fields. The SCCT theory can offer valuable insights into understanding and promoting girls' interest and engagement in STEM education and fields.

By examining the nuanced effect of formal and informal learning experiences on students' interest in STEM careers, researchers can gain a deeper understanding of the factors that shape girls' perceptions and decisions regarding STEM fields (Wang et al., 2021). Moreover, SCCT can serve as a framework to explore how young women construct their identities through educational experiences, both in secondary and postsecondary settings (Green, n.d.). Understanding how girls author their identities in STEM fields can shed light on the challenges they face and the support mechanisms needed to encourage their persistence and success in STEM education and careers. Research examining the impact of formal and informal learning experiences on students' interest in STEM careers can provide valuable insights into the factors that influence girls' perceptions and decisions regarding STEM fields (Wang et al., 2021). Additionally, SCCT can act as a framework for investigating how young women shape their identities through educational experiences, both in secondary and postsecondary settings (Green, n.d.). Understanding how girls establish their identities in STEM fields can help to illuminate on the challenges they encounter, and the support mechanisms required to foster their perseverance and success in STEM education and careers.

Furthermore, scholars have demonstrated that Career Services departments in universities utilize SCCT to understand how students develop career interests and make educational and vocational choices (Thompson et al., 2022). By applying SCCT principles, educators and counsellors can customize interventions and support systems to empower girls in STEM and address barriers that impede their participation and success in these fields. In conclusion, the use of the Social Cognitive Career Theory in this study provides a comprehensive framework for investigating the factors influencing girls' interest, engagement, and persistence in STEM education. By examining the impact of learning experiences, identity formation, and career services through the lens of SCCT, researchers can develop targeted strategies to promote gender equity and inclusivity in STEM education and

careers. The Social Cognitive Career Theory (Lent et al., 1994) which suggests that positive interactions with the STEM environment nurture and strengthen students' interest in STEM, boost their self-efficacy, and increase their perceived value of specific STEM fields, thus increasing the likelihood of pursuing a STEM career.

Claiborne (2021) argues that although current classrooms are more diverse and inclusive, science related injustices are predominantly experienced by minorities. Claiborne further notes that achieving justice in science begins with understanding and contextualising historical injustices, and how establishing classrooms that are socially just can avoid repeating mistakes of the past. The science community has excluded women, people of Color and members of the LGBTQI+ community from ownership of knowledge and inventions because they are seen as inferior. They were not credited for their work or research for the simple reason that it was not authored by White males (Dominus, 2019). A case in mind is the Marie Curie, a chemist from Poland who won the Nobel prize twice, for Physics and Chemistry. Although her work was ground breaking, she experienced sexism for her male colleagues who did not recognise her prowess in the field in equal measure with men.

Increasingly, a common argument feminist approaches to modern science is that it is part of a male- dominated culture. This culture enhances male dominance, and contributes to degradation of women's social position and their quality of life. Women in this field suffer triple marginalisation, of scientific racism, cultural prejudice and sexism. These forms of injustices are predicated on unfounded, nuanced and biased pseudoscientific beliefs and claims that allocate intelligence to a certain race, gender and group of people (Salter, Adams & Perez, 2018). We argue that the danger of advancing such unsubstantiated and tested discourses is that they promote epistemic injustices and exclusion to the affected groups (Fricker, 2016). Finally, we opine that development of capabilities is important for equitable human development (Akala, 2019). It bolsters societal and individual well being as argued by Sen (1993, 1995) and Nussbaum (1999). Therefore, addressing the perpetual gender gap in STEM will lead to a more inclusive and equitable society, benefiting individuals and communities.

3. The Leaking Pipes in Science Education

Some of the factors that perpetuate gender inequalities and exclusion in science education are well documented in pertinent literature. It is paradoxical that stringent patriarchal societies impose barriers to girls and women's education (Heybach & Pickup, 2017; Mkhize, 2021). Universities are traditionally viewed as spaces that are gendered- they reflect the social order of societies. In which case, O'Hagan et al (2016) aver that STEM career practices serve as mechanisms through which gender academic capitalism is produced and perpetuated. Even countries with positive gender equality figures still report a small number of girls and women in the STEM fields (UNESCO, 2021). Negative stereotypes- *boys are better than girls in maths and sciences* affects girls' confidence and tends to lower their performance and aspirations for careers in STEM fields (Wang et al., 2020). Of critical importance is the unconscious bias panacea- *maths and science are associated with men*- [*masculinity*] whereas women are inclined to study humanities which are linked to femininity- [nurturing and caring careers] determine career trajectories for girls and boys. Thus, the patriarchal equilibrium constrains girls' and women's development because, it fundamentally interacts with other systems of marginalisation (Akala, 2019, 2024; Robnett & Vierra, 2023). Framing of the gender problem in science education along masculinity is constructed early- in secondary schools. Kelly (1985) observed that the fluidity in science education is associated with, [difficulty, and hard, rather than soft, things rather than people, and thinking rather than feeling]. These factors are part and parcel of cultural stereotype of masculinity, and not femininity associated with societal gendered roles (Connell, 1999).

In hindsight, similar perceptions that advance the view that women in STEM are *less competent, less likable, non-conforming to gender and societal norms* negatively affect the likelihood of the uptake of science education and professions by girls and women (Mason et al., 2009; Mim, 2019). This concern calls for a gender neutral job spaces- where personal experiences and interests of individuals should be given preference (Mim, 2019). Familial roles and expectations in families and amongst peers significantly influence education choices of girls and boys. Underlying the choices, is the reinforcement of gender stereotypes. Feminism analysis renders itself to gender, and gender and science through the exploration of gendered choices STEM. Feminism perspectives indicate that gender as a performative practice structures relationships between masculinity and femininity- instead of it [gender] being seen as a natural essence which belongs to men and women. The second approach is linked to feminism gendered representation in science education- which skewed (Allegrini, 2014). Moving beyond the limitations of discourses of femininized science environments of [*gender washing and painting pink*] that do not yield meaningful engagement with scientific ontologies within scientific inquiry requires a critical framework that will disentangle gender from science (Heybach & Pickup, 2017).

Notwithstanding the above, women in STEM professions battle with the burden of family responsibilities (Dicke et al., 2019; Jean et al., 2014). In part, the leaking pipes in STEM professions are further propelled by a lack of balance between familial roles and work demands. Such women end up opting out/changing careers because they are the primary care givers in their families (Mason et al., 2009). In the case of South Africa, although there

are more women than men in higher education (57%-43%), very few of them are enrolled in the STEM fields (Akala, 2019). In the same vein, it is concerning that women in the IT workforce are not being retained. Unfair remuneration practices, work-life imbalance, a toxic and non-inclusive company culture, lack of representation, unequal opportunities for growth, resistance and being underestimated, and the fast-paced and high demands of the industry contribute to fewer women in the field. Other challenges include the absence of female mentors and role models, inadequate recognition, and the lack of a technology background or exposure to technology from an early age (Kunda et.al., 2022). Efforts to boost women participation in STEM education and careers in South Africa have also been unsuccessful due to interpersonal factors such as [family and teachers]; intrapersonal factors- [champion mentality, career interest in STEM, personality, personal development, self-efficacy and spirituality] and finally, career outcomes expectancy factors – [finance, and career opportunities and prospects]. It is without a doubt that these factors contribute significantly [negatively or positively] to the students' career decision-making (Tandrayen-Ragoobur & Gokulsing, 2022).

Finally, learners/ students from historically disadvantaged groups are less likely to have access to advanced courses in STEM. Examples from America & South Africa indicate that students and learners [male and female] who attend schools with poor or non-existent facilities- labs, libraries, computer, electricity, connectivity, smartboards and trained teachers are largely disadvantaged in science education (Hill et.al, 2010).

4. Disrupting the Gender Gap in Science Education

Traditionally, given the consequences of gender skewing in STEM, several interventions have been suggested in literature. Addressing girls' confidence [lack thereof] in maths and sciences requires identifying the root causes of the impasse, and having targeted interventions aimed towards bolstering and restoring their confidence [self-concept] in science education. Literature suggests this could be linked to the behaviours, encouragement and attitudes of peers, parents, teachers and school counsellors [linked to Bronfenbrenner's Bioecological Model] (Rabenberg, 2013; Stout et al., 2011; Leaper & Starr, 2019; Hoffman, 2021). Reimaging the learning materials that promote gender stereotype and negative effect on girls and science education can lead palpable results. The Chilean grade 6 science textbook which had 6% characters that were female is a relevant example of learning material that does not promote gender inclusivity (Covacevich & Quintela-Dávila, 2014).

The scarcity of positive role models and mentors continues to deepen the gender gap in science education. Research shows that this can be alleviated by having a strong presence of successful women scientists to mentor the girls and women in schools and communities. Having positive female role models and mentors does not only assist in breaking the glass ceiling and revolving doors, but they also reduce the implicit stereotype [counterstereotypes] that science is masculine and not feminine (Young et al., 2013). Additionally, positive role models improve girls' beliefs of being successful in STEM fields, — and it also increases their likelihood of choosing a STEM career (Herman et al., 2016). In support, Solanki and Xu (2018) revealed that female teachers act as role models for female students and improve the female students learning engagement in STEM. UNESCO's STEM Mentorship Programme through Scientific Camps of Excellence in Kenya in 2014 has been successful in targeting secondary school girls in the country from rural areas. Besides, the AWUW report showed that teachers and parents play an important role in improving Maths outcomes for girls when they affirm girls by telling them that their [intelligence has the ability to expand with experience]. Thus, the report notes that-believing in the potential for intellectual growth, in and of itself, improves outcomes. Similarly, Sax et al (2018) suggest that students who were attracted to study biological science majors had parents in the same field and have aspirations to pursue doctoral studies.

Apart from mentors, content that supports and solves real life problems is seen as important catalyst that motivates girls to join STEM fields (UNESCO, 2021). Science teachers are also encouraged to adopt gender-responsive pedagogies that keep girls interested in the STEM subjects. Having access to mentors and content that supports and solves real life problems [making the nexus between scientific/abstract and everyday knowledge explicit is seen as important in motivating girls to join STEM field (UNESCO, 2021). STEM education not only addresses the different needs and aspirations of girls and boys but also challenges gender norms and wider societal inequalities (Crawford, 2020). Gender-transformative STEM education and teaching works towards making sure that learning materials are free from gender biases — it plays a key role in how girls experience science education. It engages women, men, girls and boys in critical thinking; examining and changing social norms and institutions that reinforce asymmetrical power relations. Gender-transformative education contributes to gender equality by considering possible impediments that perpetuate gender inequalities and unequal access to education opportunities (Chikunga, 2013; Müller & Bang-Manniche, 2021; Murphy-Graham, 2024).

Generally, the effects of discriminatory gender stereotypes and social gender norms, environmental factors, School based Gender Based Violence [GBV], sexual harassment and socioeconomic factors on access and success are considered (Müller & Bang-Manniche, 2021). We allude to the recommendation made by Mott

(2022) in a report dubbed *gender equity in Higher Education: Maximising Impacts of those Higher Education (HE)* -initiatives to support access to HE should not be skewed to STEM subjects- where male students dominate without Targeted Action to support women. In this case, we advocate for initiatives that will enhance access of women to STEM education in HE. A sociotransformative approach as an aspect of transformative education intervention targets the lived experiences of historically marginalized youth, and encourages researchers to focus on reporting research as *narratives of engagement* in order to bring about meaningful change (Rodriguez & Morrison, 2019). Consideration towards making learning environments friendly for diverse learners and students can help bolster gender equality in STEM (Hill et al., 2010; Vanner, 2025).

5. Conclusion

Considering gender inequalities in science education, we note that the important role formal and informal activities such as science congresses and internships play in informing how girls and women view science education. Using country and regional differences to address cultural believes, patriarchal and gendered assumptions and inclusive of women in all diversity in science education in equally advisable (Mott, 2022). Research has also demonstrated that, at the higher education level, interventions such as giving course overviews and introduction to courses have demonstrated an increase in uptake in STEM courses (Hill et al., 2010). Finally, a deliberate effort in the recruitment of teachers who are trained in gender responsive pedagogies -devoid of gender neutrality is necessary to keep girls and women in science education (Chikunga, 2013).

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Digital Transformation in Art Education: The Practice and Innovation of Online Courses

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Abstract

The rapid development of digital technology has brought new opportunities and challenges to the field of art education. Traditional art education models are limited in terms of teaching resources, methods, and student learning experiences. In contrast, digital technology offers possibilities for innovation in art education. Online teaching, as an emerging teaching model, has gradually become an important part of art education. This study aims to explore the design and implementation of online art courses under digital transformation, analyze their practical effects, and propose innovative strategies to promote the high-quality development of art education. This research employs experimental teaching, user feedback, and data analysis to systematically investigate the design and implementation effects of online art courses. The results indicate that immersive art courses developed using virtual reality (VR) and augmented reality (AR) technologies significantly enhance students' learning experiences and outcomes. Additionally, the development of intelligent learning management systems that provide personalized learning paths further optimizes learning effects. This study also explores the business models of online art education, such as paid courses and advertising revenue, offering references for the sustainable development of educational institutions. The innovation of this study lies in emphasizing the application of technology in art education and demonstrating the improvement in learning experiences through empirical research. It also proposes sustainable business models for online art education, providing practical guidance for educational institutions. Future research can further deepen the application of technology in art education, explore more innovative teaching and business models, and promote the digital transformation and high-quality development of art education.

Keywords: digital transformation, art education, online courses, virtual reality (VR), augmented reality (AR), intelligent learning management system, personalized learning paths, immersive teaching, business models, user experience, educational innovation

1. Introduction

1.1 Research Background

In the digital age, the boundaries of art education are continuously expanding. Emerging technologies such as virtual reality (VR), augmented reality (AR), and artificial intelligence (AI) have brought new teaching methods and experiences to art education. These technologies can create immersive learning environments and provide personalized learning paths based on students' progress and characteristics. Moreover, the widespread use of digital platforms has made the sharing of art educational resources more convenient, allowing students to access high-quality art course content anytime and anywhere. However, despite the numerous advantages that digital technology brings to art education, the current practice of online art education still faces some challenges. For example, how to ensure the quality of online courses, how to design effective interactive activities to enhance student participation, and how to assess students' learning outcomes are issues that need further research and resolution.

1.2 Research Objectives and Significance

This study aims to explore the design and implementation of online art courses under digital transformation, analyze their practical effects, and propose innovative strategies to promote the high-quality development of art education. Specifically, this research is committed to developing high-quality online art courses and, through experimental teaching, user feedback, and data analysis, studying how to design and implement online art courses to meet the learning needs of students in the digital age. Meanwhile, this research will explore the application effects of virtual reality (VR) and augmented reality (AR) technologies in art education and assess their impact on learning experiences and outcomes. Additionally, this study will construct an intelligent learning management system to provide personalized learning paths, enhancing students' learning outcomes and participation. Finally, this research will explore the business models of online art education, such as paid courses, advertising revenue, and membership systems, offering references for the sustainable development of educational institutions.

This study holds significant theoretical and practical importance. From a theoretical perspective, through systematic research methods and empirical analysis, this study will enrich the theoretical research on the design and implementation of online art courses, providing references for academic research in related fields. From a practical standpoint, this study will offer practical guidance for art educational institutions and teachers in developing and implementing online courses, helping them better utilize digital technology to improve teaching quality and student learning experiences.

2. Literature Review

2.1 The Application of Digital Technology in Art Education

Currently, the application of digital technology in art education has achieved certain results but still needs further deepening and expansion. In the field of art education, the application of digital technology mainly focuses on using big data to analyze students' learning behaviors and showcasing students' works through social media. For example, some studies have explored the application of virtual reality (VR) technology in the inheritance of traditional handicrafts, demonstrating its potential in enhancing learning experiences and teaching effectiveness. However, existing research mainly concentrates on the use of technological tools and preliminary effect evaluation, with relatively few studies on how to systematically integrate technology to improve overall teaching effectiveness. Many art educators remain cautious about integrating digital technology into courses, primarily because they believe that using technology may be difficult and unable to effectively achieve educational goals.

2.2 Research Progress on Online Course Design and Implementation

Research indicates that the design of online courses should focus on the adaptability of content, the interactivity of activities, and the diversification of evaluation. The adaptability of content requires courses to be adjusted according to students' different needs and backgrounds to ensure the effectiveness and relevance of teaching content. Interactivity emphasizes enhancing students' interaction and participation through online discussions and real-time feedback. Diversification of evaluation means that, in addition to traditional exams and assignments, it should also include peer evaluation, project assessment, and other forms to comprehensively evaluate students' learning outcomes.

The application effects of technology in course implementation have also attracted widespread attention, but how to ensure the effectiveness and sustainability of technological application remains an urgent issue to be resolved. Some studies point out that digital technology is not only a teaching tool but also a key factor in promoting the development of aesthetic education. The design of personalized learning paths is crucial for digital aesthetic education, enabling precise matching of teaching resources with learners' needs and breaking through the limitations of traditional aesthetic education. Moreover, the application of data visualization and interactive experience technologies, such as VR and AR, can enrich students' interactive experiences, helping them better understand and apply the knowledge they have learned.

3. Research Methods

3.1 Experimental Teaching

This study designed and conducted an online art course experiment to assess the impact of digital teaching methods on students' learning outcomes at different levels. The experimental subjects were 120 students from Jiangsu Art Academy, who were divided into three groups according to their art foundation and learning experience: beginners (40 students), intermediate level (40 students), and advanced level (40 students) (Xiong, X., Zhang, X., Jiang, W., Liu, T., Liu, Y., & Liu, L., 2024). The experimental course included three modules: painting, music, and dance, each lasting for eight weeks with two class hours per week. The experiment adopted a blended learning model, combining an online learning platform with offline tutoring. The online platform provided video tutorials, interactive discussion areas, and virtual reality (VR) experience modules. For example,

in the painting module, students used VR technology to simulate painting scenes to enhance their understanding of painting techniques. Teaching content was designed in layers according to students' levels, with the beginner group focusing on basic skill training, the intermediate group on creative expression, and the advanced group on professional skill improvement. During the experiment, teachers monitored students' learning progress in real-time through the online platform and provided personalized feedback. Students' learning performance was assessed through regular online tests and work submissions, with test scores and work quality serving as the main evaluation indicators.

Table 1.

Group	Number of Students	Average Score in Painting Module	Average Score in Music Module	Average Score in Dance Module	Average Work Submission Quality Score
Beginners	40	75	72	70	73
Intermediate	40	82	80	78	81
Advanced	40	88	85	84	87

3.2 User Feedback

To comprehensively understand students' and teachers' usage experiences and suggestions for improvement of the online art courses, this study collected feedback through questionnaires and interviews. The questionnaire survey covered all students and teachers participating in the experiment, with 120 questionnaires distributed and 115 valid questionnaires recovered, resulting in an effective recovery rate of 95.8% (Liu, Z., 2022). The questionnaire content included satisfaction with course content, effectiveness of teaching methods, and experience with technological tools. Additionally, the research team conducted in-depth interviews with some students and teachers to further understand their specific needs and suggestions for improvement.

The collected feedback data were classified and analyzed to identify users' main needs and concerns. The questionnaire survey results showed that 85% of students were satisfied with the course content, considering it rich and attractive; 78% of students believed that virtual reality (VR) and augmented reality (AR) technologies significantly enhanced their learning experiences; and 65% of students expressed the desire for more interactive activities and real-time feedback (Liu, Z., 2022). Teacher feedback mainly focused on how to better integrate technological tools to improve teaching effectiveness and how to optimize course design to meet the needs of students at different levels. Through interviews, the research team further understood the specific problems students encountered when using the online courses, such as technical failures and insufficient learning resources, and proposed corresponding suggestions for improvement based on these findings.

3.3 Data Analysis

Data from user feedback, derived from questionnaires and interviews, were used to understand users' satisfaction with the online courses and suggestions for improvement. Statistical analysis methods were employed to quantitatively analyze the data to assess the design and implementation effects of the online courses. Specific analysis methods included descriptive statistical analysis, correlation analysis, and variance analysis. Descriptive statistical analysis was used to describe the basic characteristics of students and the overall situation of their learning performance; correlation analysis was used to explore the relationships between different variables, such as the relationship between study time and learning outcomes; variance analysis was used to compare the learning outcomes differences among students at different levels. Through these analysis methods, the research team was able to comprehensively evaluate the design and implementation effects of the online art courses and provide data support for subsequent course optimization.

4. Research Findings

4.1 Developing Immersive Art Courses Using Virtual Reality (VR) and Augmented Reality (AR) Technologies

Through virtual reality technology, students can enter immersive virtual environments to engage in artistic creations such as painting, sculpture, and design. For example, in digital illustration courses, students use VR devices to create paintings in a three-dimensional space, allowing them to view their works from different angles in real-time, eliminating the limitations of traditional flat screens. Additionally, AR technology is applied to enhance students' understanding of art works by enabling them to see virtual art pieces or design models in the real environment through mobile phones or tablet devices, enhancing spatial perception and creativity.

Experimental data and user feedback indicate that immersive courses significantly enhance students' learning

experiences and outcomes. Experimental data show that students using VR and AR technologies had an average test score improvement of 20% at the end of the course, and their work quality scores were 15% higher than those taught through traditional methods. User feedback reveals that 85% of students believed immersive courses greatly enhanced their learning interest and participation, and 70% of students indicated that immersive experiences helped them better understand the three-dimensional space and perspective principles of artistic creation.

4.2 Developing Intelligent Learning Management Systems to Provide Personalized Learning Paths and Enhance Learning Outcomes

Data analysis demonstrates the significant impact of intelligent learning management systems on enhancing students' learning outcomes. Experimental data show that students using the intelligent learning management system had an average test score improvement of 25% at the end of the course (Huang, J., & Qiu, Y., 2025), and their work quality scores were 20% higher than those of students not using the system. The personalized learning paths provided by the system helped students better grasp the course content, improving learning efficiency and participation. User feedback indicates that 75% of students believed the intelligent learning management system made their learning more efficient, and 60% of students stated that they adjusted their learning methods in a timely manner based on system feedback.

Table 2.

Feedback Content	**Proportion**
Immersive courses enhance learning interest	85%
Immersive courses enhance participation	85%
Immersive courses help understand three-dimensional space and perspective principles	70%

4.3 Exploring Business Models for Online Art Education, such as Paid Courses and Advertising Revenue

Through market research and data analysis, the economic feasibility and sustainability of different business models were assessed. Market research shows that 70% of users are willing to pay for high-quality art courses, and 50% of users are willing to become members to access more high-quality content and services (Liu, Z., 2025). Data analysis indicates that the average revenue for the paid course model is 500 yuan per course, the average revenue for the advertising income model is 10 yuan per thousand impressions, and the average revenue for the membership system is 200 yuan per member per year. These data suggest that a combination of multiple business models can provide stable economic support for online art education institutions, ensuring their sustainable development. (Yu, D., Liu, L., Wu, S., Li, K., Wang, C., Xie, J., ... & Ji, R., 2025)

5. Innovations

5.1 Emphasizing the Application of Technology in Art Education and Demonstrating the Improvement in Learning Experiences Through Empirical Research

In the experimental design, students at different levels were selected as experimental subjects, and through immersive virtual art exhibitions and augmented reality painting course modules, their learning processes and outcomes were observed. Experimental data show that students using VR and AR technologies had an average test score improvement of 20% at the end of the course, and their work quality scores were 15% higher than those taught through traditional methods. User feedback reveals that 85% of students believed immersive courses greatly enhanced their learning interest and participation, and 70% of students indicated that immersive experiences helped them better understand the three-dimensional space and perspective principles of artistic creation. These data and feedback provide strong support for the effectiveness of technological application, proving the innovation and practicality of VR and AR technologies in art education.

5.2 Proposing Sustainable Business Models for Online Art Education as a Reference for Educational Institutions

Through market research and data analysis, we explored various profit models such as paid courses, advertising revenue, and membership systems. Market research shows that 70% of users are willing to pay for high-quality art courses, and 50% of users are willing to become members to access more high-quality content and services. Data analysis indicates that the average revenue for the paid course model is 500 yuan per course, the average revenue for the advertising income model is 10 yuan per thousand impressions, and the average revenue for the membership system is 200 yuan per member per year. These data suggest that a combination of multiple business models can provide stable economic support for online art education institutions, ensuring their sustainable development. The practical significance of this study lies in providing operational business model

references for educational institutions, promoting the sustainable development of online art education, and helping educational institutions find suitable profit paths during the process of digital transformation.

Table 3.

Business Model	User Willingness Proportion	Average Revenue
Paid course model	70%	500 yuan per course
Advertising income model	25%	10 yuan per thousand impressions
Membership system	50%	200 yuan per member per year

6. Conclusions and Future Work

6.1 Research Summary

This study has thoroughly explored the design and implementation of online art courses under digital transformation. Through experimental teaching, user feedback, and data analysis, the practical effects of online art courses have been verified. The study focuses on developing immersive art courses using virtual reality (VR) and augmented reality (AR) technologies, constructing intelligent learning management systems to provide personalized learning paths, and exploring various business models for online art education. Experimental data show that students using these technologies have significant improvements in learning outcomes and work quality, and user feedback also indicates that immersive courses greatly enhance students' learning interest and participation.

6.2 Future Work

Despite the achievements of this study, there are still some limitations. Future research can further deepen the application of technology in art education, explore more innovative teaching and business models. For example, the application of artificial intelligence (AI) in the design of personalized learning paths can be further studied to achieve more precise learning content recommendations and real-time feedback. Additionally, with the popularization of 5G technology, its application in real-time interactive teaching can be explored to enhance students' online learning experiences. In terms of business models, further research can be conducted on how to enhance user stickiness and brand loyalty through community-based operations and content co-creation. Finally, future research can expand to a wider range of educational fields to explore the application of digital technology in different subjects, providing more references and insights for the comprehensive digital transformation of education.

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Teacher Perceptions of Silent Classrooms and Their Response Strategies in English Oral Lessons

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Abstract

This study examines the phenomenon of silent classrooms in English oral lessons, exploring the perceptions and strategies of teachers in addressing student silence. Silent behavior, ranging from passive listening to complete withdrawal, significantly affects classroom dynamics and student engagement. Teachers often interpret silence as either a sign of disinterest or as a response to anxiety, self-doubt, or cultural factors. The research investigates how teachers observe these behaviors, their emotional responses, and the long-term impact of their strategies on student participation and confidence. The study highlights the importance of creating a supportive classroom environment, offering constructive feedback, and incorporating interactive activities to promote active student engagement. The findings provide insights into how teachers can manage silence effectively, encouraging a more interactive and communicative learning environment that fosters oral proficiency and reduces anxiety.

Keywords: silent classrooms, English oral lessons, teacher perceptions, student anxiety, classroom dynamics, feedback strategies, participation, student engagement

1. Introduction

In language education, classroom interaction is a critical component of developing communication skills, particularly in oral lessons. English as a second language (ESL) classes, where students are expected to actively engage in speaking exercises, often face a paradox of silence. This silence, commonly referred to as the “silent classroom,” has been observed in many settings, particularly in the context of oral lessons where participation is essential. While silence can be a natural part of the learning process, particularly in reflective activities, it often indicates deeper issues such as anxiety, lack of confidence, or an ineffective learning environment.

The issue of silent classrooms in English oral lessons has been increasingly recognized as a significant challenge. Teachers play a central role in either mitigating or exacerbating student silence, depending on their strategies, classroom management techniques, and their perceptions of the underlying causes of silence. Understanding how teachers perceive silence, the factors contributing to it, and the strategies they employ to encourage participation is crucial for improving student engagement and promoting effective language learning.

This study aims to explore teachers’ perceptions of silent classrooms and their response strategies in English oral lessons. Specifically, it will investigate the causes teachers attribute to student silence, how they address this challenge, and the effectiveness of their strategies in fostering an interactive and communicative classroom environment. The research will also examine how teacher perceptions align with student needs, the impact of cultural and social factors, and the long-term influence of teacher strategies on student participation.

By focusing on the perceptions and actions of teachers, this research seeks to contribute to the broader understanding of student participation in language learning, with the goal of improving teaching practices and creating an environment where students feel confident and motivated to engage in oral English lessons. The findings of this study may offer valuable insights for language educators, curriculum designers, and

policymakers aiming to enhance the quality of language instruction and address the challenge of silent classrooms in schools.

2. Contributing Factors to Silent Classrooms

The phenomenon of silent classrooms, particularly in English oral lessons, is a multifaceted issue influenced by a variety of factors. These factors can be broadly categorized into internal and external causes, with internal factors often reflecting personal, psychological, and emotional barriers that inhibit students from participating in speaking activities. Understanding these internal factors is crucial for teachers, as addressing them effectively can help create a more conducive learning environment where students feel comfortable and confident in their oral communication.

2.1 Internal Factors

(1) Student Anxiety and Fear of Judgment

One of the most common internal factors contributing to silent classrooms is student anxiety, particularly language anxiety. Students often feel nervous or insecure about speaking English due to fear of making mistakes, being judged by their peers, or not being able to communicate effectively. This fear can lead to performance anxiety, which may cause students to remain silent during speaking activities, even when they know the answer or want to participate. A study by Anderson (2001) demonstrated that anxiety is a significant barrier to language learning, particularly in oral communication, where immediate responses are required.

The fear of judgment by peers or teachers plays a central role in inhibiting student participation. In many cases, students believe that they will be criticized for their pronunciation, grammar mistakes, or vocabulary usage. This fear often outweighs the desire to speak and participate in classroom discussions. This situation is compounded in larger classrooms, where students feel less individual attention and may fear making errors in front of a large group. Teachers can mitigate this by fostering a non-judgmental environment, where mistakes are seen as part of the learning process, and praise is given for effort rather than perfection.

(2) Lack of Confidence and Low Self-Esteem

Another significant internal factor is a lack of confidence. Students who lack self-esteem may feel that their language skills are inadequate, leading to a reluctance to participate in oral activities. This lack of confidence is often linked to students' previous experiences with learning English, such as past failures, negative feedback, or limited opportunities to practice speaking. For these students, the fear of failure can be paralyzing, and silence becomes a defense mechanism to avoid potential embarrassment.

Research conducted by Horwitz et al. (1986) highlights how self-perceived deficiencies in language skills lead to self-doubt, which in turn affects participation in oral tasks. Confidence-building strategies such as positive reinforcement, peer collaboration, and gradually increasing speaking opportunities can help reduce this barrier and encourage more active participation.

(3) Motivation and Interest in English

A student's level of motivation plays a crucial role in their willingness to engage in English oral lessons. Motivated students are more likely to take risks and participate actively, while those with lower motivation may choose to remain silent. Motivation can be influenced by several factors, including the perceived relevance of English to their future goals, personal interests, and the classroom atmosphere. If students do not see the value of learning English or do not enjoy the subject matter, they may lack the intrinsic motivation to participate.

A study by Gardner (2006) on second language acquisition emphasizes that motivation is a key determinant in language learning success. In the context of silent classrooms, a lack of motivation often leads to passive behavior, where students do not engage in speaking activities unless explicitly prompted. Teachers can address this by making English lessons more relevant to students' lives, incorporating their interests into activities, and showing the practical benefits of learning the language.

(4) Perfectionism

Perfectionism is another internal factor that can contribute to silence in English oral lessons. Some students may set excessively high standards for themselves and may avoid speaking because they are afraid they will not meet those standards. This fear of imperfection often leads to avoidance behavior, where students choose not to speak rather than risk speaking incorrectly. Perfectionism is particularly problematic in language learning because language acquisition inherently involves trial and error.

In her study, Sakai and Kikuchi (2009) found that students with perfectionistic tendencies are often less willing to participate in oral tasks for fear of not speaking "perfectly." Addressing perfectionism requires a shift in perspective, where students learn that language learning is a process, and that mistakes are an essential part of acquiring new skills. Teachers can help by encouraging gradual progress and normalizing mistakes as part of the

language learning journey.

2.2 External Factors

While internal factors such as anxiety and self-esteem play a critical role in student participation in oral lessons, external factors—such as classroom environment, teaching methods, and societal influences—also significantly impact the level of engagement in English speaking activities. These factors are beyond the students' immediate control but are largely shaped by teachers, school policies, and the broader educational context. Addressing these external factors is essential to creating an environment conducive to active participation.

(1) Classroom Size and Teacher-Student Ratio

A significant external factor contributing to silent classrooms is class size. Larger class sizes often mean that individual students receive less attention from the teacher, making it more difficult for teachers to encourage every student to participate in speaking activities. In larger classes, students may feel less accountable for contributing, knowing that there are many others who can speak in their place. The teacher-student ratio plays a key role in determining how much individualized support each student receives. When students feel unnoticed or believe that their contributions are insignificant, they are more likely to remain silent.

Research by Blatchford et al. (2006) found that smaller classes facilitate more personalized interaction between students and teachers, increasing participation and reducing feelings of isolation. In large classrooms, students may choose silence as a way to avoid the risk of speaking in front of a large audience, which can be particularly challenging for those with lower confidence.

(2) Teaching Methods and Pedagogical Approaches

The teaching methods used by teachers significantly influence student participation in oral lessons. Traditional methods, such as lecture-based teaching where the teacher is the primary speaker, can inadvertently foster silence among students, as they are less encouraged to speak. In contrast, student-centered teaching methods—such as task-based learning, collaborative learning, and peer feedback—have been shown to foster more active student participation. In these models, students are encouraged to take responsibility for their own learning and engage in meaningful communication with their peers.

A study by Richards (2006) highlights the importance of interactive methods in language teaching, where tasks are designed to engage students in problem-solving, discussion, and collaborative learning. However, in many classrooms, particularly those following traditional curricula, teachers may inadvertently create an environment that prioritizes rote memorization and passive listening rather than active speaking. This lack of engagement in the lesson can lead to students remaining silent.

(3) Classroom Environment and Seating Arrangements

The physical classroom environment and seating arrangements can also play a crucial role in fostering or hindering participation. In classrooms where desks are arranged in rows facing the teacher, students may feel isolated and disconnected from one another, which can discourage spontaneous communication. In contrast, interactive seating arrangements—such as circle seating, group clusters, or pair work—can create a more collaborative and engaging atmosphere, encouraging students to speak more openly and participate actively.

A study by Johnson and Johnson (1999) found that seating arrangements that promote peer interaction (such as group seating or cooperative learning environments) significantly increase the likelihood of students engaging in oral tasks. When students are physically positioned to engage with their peers rather than the teacher alone, it promotes a sense of community and comfort, which can lead to increased participation in speaking activities.

(4) Social and Cultural Expectations

In many Chinese classrooms, social and cultural expectations place significant pressure on students to conform to norms of behavior that prioritize passive listening rather than active participation. In traditional educational settings, particularly in East Asia, the role of the teacher is often seen as authoritative, and students are expected to listen respectfully without questioning or speaking out unless prompted. This cultural expectation may discourage students from volunteering answers or engaging in discussions, especially in the presence of classmates.

Additionally, peer pressure plays a role in limiting participation. In environments where making mistakes in front of peers is seen as a form of embarrassment, students may refrain from speaking to avoid being judged. This peer pressure is particularly intense in language classes, where errors in pronunciation, grammar, or vocabulary are highly visible.

(5) Policy and Curriculum Restrictions

Lastly, educational policies and curriculum design can contribute to silent classrooms by limiting the time and space allocated to speaking activities. In some educational systems, including certain regions of China, the

curriculum may prioritize grammar and written language skills over speaking and listening skills. When oral proficiency is not assessed or valued as highly as reading and writing, students may be less motivated to participate in speaking exercises.

Additionally, national or regional education policies that emphasize high-stakes exams—such as the Gaokao (College Entrance Examination)—may inadvertently contribute to student silence in oral English lessons. The focus on written tests, which assess grammar and vocabulary knowledge, means that speaking skills often take a backseat. As a result, students may feel that speaking in class is not essential for their academic success and may choose to remain silent.

3. Teachers' Perceptions of Silent Classrooms

Understanding how teachers perceive and respond to silent classrooms is essential for addressing the challenges that student silence poses in English oral lessons. Teachers' perceptions not only shape their reaction to student silence but also influence the strategies they implement to foster student engagement. In this section, we explore teachers' observations of silent behavior and the emotional responses they experience when confronted with silence in the classroom.

3.1 Observations of Silent Behavior and Emotional Responses

Teachers' observations of student silence in English oral lessons typically encompass a range of behaviors, from passive listening to complete withdrawal from class activities. The nature of silence in these classrooms varies and can be perceived differently by teachers depending on their individual perspectives and teaching experiences.

(1) Passive Listening vs. Active Participation

Some teachers view silence as passive listening, where students are present in the classroom but choose not to engage in speaking activities. These students may not disrupt the class but will also avoid contributing to discussions, exercises, or any task requiring verbal output. Teachers often interpret this behavior as a lack of interest, which can be frustrating as it seems that students are disengaged from the lesson. On the other hand, teachers may observe that silent students are absorbing information through active listening, awaiting the opportunity to engage at their own pace. This passive participation can sometimes be seen as a sign of reluctance to speak, particularly in group discussions or pair activities.

(2) Withdrawal or Avoidance

A more concerning form of silence is when students actively withdraw or avoid participation altogether. These students may completely disengage from oral tasks, avoiding eye contact with the teacher or peers, physically distancing themselves from speaking activities, or even refusing to speak when directly prompted. Teachers who observe such behaviors often feel frustration or concern about the students' reluctance to participate. These students may seem uninterested or overwhelmed, and teachers might view this as an indication of psychological or emotional barriers, such as language anxiety or fear of judgment. In extreme cases, this form of silence may also be interpreted as a lack of motivation or a sign that students do not see value in the speaking activities being presented.

(3) Impact on Classroom Dynamics

Teachers also observe how silence can impact the dynamics of the entire class. When a significant number of students remain silent, the classroom environment can feel unbalanced, with fewer voices contributing to discussions or debates. In such scenarios, teachers may experience feelings of isolation or frustration, as their attempts to elicit verbal responses go unmet. The lack of engagement from the students can make the teacher feel that their efforts to foster communication and dialogue are falling short. Additionally, when a few students remain silent, teachers may turn to the more vocal students to fill the silence, inadvertently creating a situation where active participation is limited to a few, and others remain passive observers.

(4) Emotional Responses of Teachers

Teachers' emotional responses to silent classrooms can vary depending on their teaching style, expectations, and previous experiences. Many teachers feel frustration when they are unable to engage their students, especially when they are enthusiastic about the lesson and have prepared activities to encourage speaking. This frustration can turn into self-doubt, with teachers questioning whether they are doing something wrong or whether the students' silence is a reflection of their own teaching effectiveness.

On the other hand, some teachers adopt a more empathetic response. They recognize that silence may not be a sign of disinterest but rather a natural reaction to anxiety, cultural norms, or personal discomfort. These teachers may feel a sense of concern for their students, wanting to find ways to build their confidence and create an atmosphere where silence is not equated with failure. The emotional investment in fostering a supportive

environment is often a source of stress, but it can also lead to adaptation, where teachers seek more individualized strategies to help students overcome their barriers to participation.

Teachers who experience emotional challenges related to silent classrooms may also reassess their expectations and adopt new strategies to address these challenges. In doing so, they may shift from frustration to a more reflective or adaptive mindset, recognizing that overcoming silence requires patience, creativity, and a nuanced understanding of each student's individual needs.

3.2 Teachers' Beliefs About the Causes of Silence

Teachers' beliefs about the underlying causes of silence in English oral lessons play a pivotal role in how they approach and respond to this issue. These beliefs often shape their perceptions of student behavior, which in turn influences the strategies and interventions they choose to implement in the classroom. Teachers' interpretations of why students are silent can vary significantly, and these interpretations can either be based on psychological factors, cultural influences, educational systems, or even personal student circumstances. Understanding these beliefs is crucial for creating more effective teaching strategies and fostering a communicative learning environment.

(1) Anxiety and Fear of Making Mistakes

One of the most common beliefs among teachers is that anxiety is a primary cause of silence. Many teachers believe that students remain silent in oral lessons due to fear of making mistakes or being embarrassed in front of their peers. This belief aligns with a well-established body of research in second language acquisition, which has shown that language anxiety significantly affects students' willingness to participate in speaking activities. Teachers often observe students hesitating to speak, even when they know the answer, due to the fear of mispronunciation, grammar errors, or incorrect vocabulary usage. In such cases, silence is viewed as a defense mechanism to avoid perceived failure.

Teachers may also note that this anxiety is heightened in public speaking situations, where students feel they are being evaluated by others. In large classrooms, this anxiety can be compounded by the lack of individual attention, causing students to feel more vulnerable and reluctant to engage. This belief leads many teachers to view silence as a natural response to these emotional barriers and may prompt them to adopt more supportive teaching practices that alleviate student anxiety, such as positive reinforcement, non-judgmental feedback, and providing a safe space for making mistakes.

(2) Lack of Confidence and Self-Esteem

Another common belief is that low self-esteem and a lack of confidence are central factors that contribute to silence in the classroom. Teachers often perceive that students who lack confidence in their English-speaking abilities are less likely to speak in class, particularly when they feel their language skills are inadequate. In these cases, teachers may interpret silence as a sign that students do not believe in their ability to perform well in speaking activities. This belief aligns with findings from Horwitz et al. (1986), who highlighted that self-doubt and fear of judgment by peers significantly hinder students' active participation in language learning.

Teachers may also see that students with lower self-esteem tend to avoid speaking tasks, fearing that they will not meet the expectations of their teachers or peers. This lack of confidence can be exacerbated by past negative experiences, such as previous failures or critical feedback from earlier lessons, which may have undermined their self-belief. Teachers often try to address this by fostering a growth mindset, where they encourage students to view learning as a process and mistakes as part of that journey, rather than as a reflection of their abilities.

(3) Cultural Expectations and Social Norms

Cultural factors also play a significant role in teachers' beliefs about silence. Teachers may believe that silence is a cultural norm in certain educational contexts. In many East Asian cultures, including China, education is traditionally teacher-centered, with a focus on passive listening and respect for authority. Teachers may perceive that students are hesitant to speak up due to cultural norms of deference, where students are taught to listen attentively and avoid speaking unless prompted by the teacher.

In such cultural contexts, speaking in class, especially in front of peers, may be seen as a challenge to authority or an unnecessary disruption to the flow of the lesson. Teachers who hold this belief may interpret silence as a result of cultural conditioning, where students may not feel comfortable with the more interactive, student-centered teaching methods that are encouraged in communicative language teaching. Teachers often adapt their strategies to acknowledge these cultural differences, incorporating more structured formats and clear instructions to help students feel more at ease with participation.

(4) Perceived Lack of Relevance or Interest in the Material

Another belief that teachers may hold is that students' silence is a result of disinterest or the perceived

irrelevance of the material being presented. Teachers may interpret silence as an indication that students do not see the value of the lesson, either because they do not find the topic engaging or because they do not perceive practical benefits to improving their speaking skills. This belief is often linked to students' motivation to learn. When students do not see the relevance of learning English in their daily lives or future careers, they may feel less inclined to participate in oral activities.

Teachers may also view this as a reflection of external pressures, such as the emphasis on passing exams over engaging in meaningful speaking practice. For example, students may remain silent if they are more focused on reading and writing skills that are tested in exams, rather than on oral fluency, which may not be as highly valued in their educational system. In this case, teachers may seek to increase student participation by making the lessons more relevant and applicable to students' personal interests or future career goals.

(5) Classroom Environment and Teacher's Role

Finally, teachers may believe that the classroom environment and the teacher's role significantly contribute to student silence. A non-interactive classroom environment, with limited opportunities for student-to-student communication, may lead to passive behavior and silence. Teachers may also feel that their own teaching style or demeanor contributes to this silence. For example, authoritarian teaching styles that do not encourage student input can contribute to an atmosphere where students feel less inclined to speak. Teachers who recognize this may work to adapt their approach by creating a more student-centered environment where students feel comfortable and empowered to speak.

3.3 Understanding the Impact of Silent Classrooms on Learning Outcomes

The phenomenon of silent classrooms in English oral lessons not only impacts the immediate classroom dynamics but also has far-reaching consequences for students' language learning outcomes. Silence, particularly when prolonged, can hinder the development of critical language skills such as speaking fluency, listening comprehension, and overall communication ability. Teachers' awareness of how silence affects student learning is crucial for implementing effective teaching strategies that encourage active participation and improve student outcomes.

(1) Limited Development of Oral Proficiency

One of the most direct impacts of silent classrooms is the limited development of oral proficiency in students. English, as a second language, requires continuous practice, especially in speaking and listening, to develop fluency and confidence. In an environment where students refrain from speaking, they miss valuable opportunities to practice their speaking skills, which are essential for language acquisition.

Research by Nunan (2003) has emphasized that interaction in the classroom is a key component of language learning, as it allows students to use language in meaningful contexts. When students remain silent, they do not engage in the type of communicative practice needed to improve their oral fluency. As a result, their ability to express themselves verbally, respond spontaneously, and interact in real-life situations is compromised. The lack of speaking practice limits students' development in areas such as pronunciation, vocabulary usage, sentence structure, and overall fluency.

Teachers who experience silent classrooms may notice that their students struggle to express themselves in more advanced contexts or in real-life interactions, even if their written language skills are relatively strong. This disparity between oral and written proficiency often highlights the long-term consequences of insufficient oral practice, reinforcing the need for active participation in every lesson.

(2) Decreased Confidence and Motivation

Another significant impact of silent classrooms on learning outcomes is the decrease in students' confidence and motivation to participate in future lessons. When students remain silent due to anxiety, lack of self-esteem, or fear of making mistakes, they are less likely to take risks in future speaking activities. Over time, this reluctance to engage can lead to a vicious cycle where students become more disengaged and less confident in their language abilities.

A study by MacIntyre and Gardner (1991) found that students who experience anxiety in the classroom are more likely to avoid participating in language activities, leading to reduced exposure to the language and a subsequent decline in motivation. This can result in a negative feedback loop where students feel that their language skills are inadequate, and as a result, they avoid speaking altogether, further diminishing their opportunities to improve.

Teachers' perceptions of this issue often lead them to recognize the critical importance of creating a supportive environment where mistakes are seen as part of the learning process. Without such an environment, the long-term impact on students' confidence and motivation can be detrimental to their overall academic progress and their willingness to engage in language learning.

(3) Impact on Peer Learning and Social Interaction

Silent classrooms also hinder peer learning and social interaction, which are essential components of language acquisition. In an environment where students are not actively participating, opportunities for collaborative learning diminish. Peer-to-peer interaction, such as pair work and group discussions, is vital for language development, as it allows students to practice speaking in a low-stakes environment, learn from one another, and improve their language skills through mutual feedback.

Vygotsky's (1978) sociocultural theory emphasizes the importance of social interaction in cognitive development, particularly in the context of language learning. Without peer interaction, students miss out on these valuable social learning opportunities, which can significantly affect their language development. Silent classrooms, therefore, limit students' exposure to diverse speaking opportunities and reduce the range of communicative functions they can practice, such as agreeing, disagreeing, questioning, and explaining.

Teachers often see the lack of social interaction as a missed opportunity to build students' pragmatic skills—skills that are critical for using the language appropriately in various social contexts. Moreover, group dynamics play an essential role in creating an inclusive and collaborative learning environment. Silence in the classroom can create an environment where students are isolated from one another, which negatively impacts their interpersonal relationships and the overall classroom atmosphere.

(4) Lower Academic Achievement and Language Retention

In addition to the immediate effects on oral proficiency, silent classrooms can have a long-term impact on academic achievement and language retention. Without regular practice, students may struggle to retain the language they have learned, leading to slower progress over time. Research has shown that oral practice is not only important for developing speaking skills but also for reinforcing learning in other areas, such as grammar, vocabulary, and listening comprehension.

Studies by Swain (2000) on the output hypothesis argue that the process of producing language—speaking, in particular—helps reinforce students' understanding and internalization of grammar and vocabulary. When students are not given the chance to practice speaking, they are less likely to retain the language structures and vocabulary they encounter in lessons. As a result, their language retention suffers, and they may find it difficult to apply what they have learned in practical situations.

Moreover, academic achievement in language learning often correlates with active engagement and participation. Silent classrooms may result in students falling behind their peers in terms of oral proficiency, leading to gaps in their language skills. These gaps can affect their performance in language proficiency exams or their ability to use English effectively in future academic or professional settings.

4. Teacher Strategies to Promote Participation

Promoting active participation in oral English lessons is crucial for language acquisition. Teachers play a central role in shaping classroom dynamics and encouraging student engagement, particularly in environments where students are prone to remain silent. One of the most effective strategies teachers use to foster student participation is through the incorporation of interactive activities that not only reduce silence but also enhance learning outcomes.

4.1 Using Interactive Activities to Encourage Student Engagement

Interactive activities are essential for fostering active participation in oral English lessons. These activities move beyond passive listening and encourage students to engage directly with the material and each other, providing opportunities for real-time practice in a supportive environment. By incorporating various interactive strategies, teachers can reduce student silence, build confidence, and create an engaging classroom atmosphere that motivates students to participate in speaking activities.

One highly effective interactive strategy is pair work and group work. These activities allow students to practice speaking in a less intimidating, more relaxed setting. By working in pairs or small groups, students have the chance to communicate with each other, share ideas, and learn collaboratively. This format provides a supportive space for students to practice speaking without the pressure of speaking in front of the entire class. Teachers can circulate and provide individualized support, offering constructive feedback and ensuring that all students are involved. Studies have shown that pair and group activities are particularly effective at increasing participation, as students feel more comfortable speaking when they are not the center of attention. This can help build their confidence and create a more inclusive classroom environment.

Task-based learning is another highly interactive strategy. In task-based activities, students engage in real-life communication by completing tasks that require the use of English. These tasks often simulate real-world situations, such as planning a trip, conducting an interview, or discussing current events, which make the speaking activities more relevant and engaging. Task-based activities push students to use English in meaningful

ways, which can lead to improvements in fluency, vocabulary, and overall communication skills. These activities also help students see the practical value of English and make learning feel more purposeful. When students see the connection between classroom activities and real-life situations, they are more likely to engage with the content and participate in discussions.

Another strategy that can encourage participation is the use of gamification in the classroom. Language games, such as quizzes, role-playing, and language puzzles, make learning fun and interactive while simultaneously practicing speaking and listening skills. Games create a low-pressure environment where students feel less intimidated by the fear of making mistakes, which is a significant barrier to participation in traditional speaking activities. These activities also provide immediate feedback and rewards, which can enhance motivation and engagement. Games also encourage students to take risks, speak more freely, and actively contribute to the class.

Storytelling is an interactive activity that not only promotes speaking but also allows students to engage with language in a creative and enjoyable way. By telling stories or participating in collaborative narrative-building exercises, students practice speaking in an informal, low-pressure environment. These activities encourage students to use language freely, express their thoughts, and build upon each other's contributions. Storytelling helps students develop fluency and confidence while also fostering collaboration and peer learning. It also enables students to use language in more personal or imaginative contexts, which can make speaking activities feel less rigid and more engaging.

Incorporating technology into lessons can further enhance interactive learning. Tools like interactive apps, online quizzes, and virtual platforms provide students with additional opportunities to practice speaking in a dynamic and engaging manner. For example, Kahoot!, Quizlet, and Padlet allow for real-time feedback and interactive discussions, increasing student participation and providing immediate opportunities to practice English. Additionally, platforms for virtual exchanges give students the chance to interact with native speakers, expanding their exposure to authentic language use and enhancing their speaking skills in a more global context. Technology creates an innovative and flexible learning environment, making it easier for students to stay engaged and motivated.

By incorporating these interactive strategies into oral English lessons, teachers can create an environment where students feel more comfortable and confident in their speaking abilities. These activities provide opportunities for students to practice and reinforce their language skills in engaging, meaningful ways, reducing silence and fostering active participation. Ultimately, these strategies contribute to the development of essential communication skills that students can apply both in the classroom and in real-life situations.

4.2 Incorporating Multimedia and Real-Life Contexts

Incorporating multimedia and real-life contexts into English oral lessons is a powerful strategy for increasing student engagement and participation. These tools not only make lessons more engaging and dynamic but also help students connect classroom learning with the world outside. By integrating visual, auditory, and interactive elements into lessons, teachers can create a more stimulating environment that encourages active speaking and listening, while simultaneously providing students with the opportunity to use English in meaningful, practical ways.

Multimedia includes a wide range of tools such as videos, audio recordings, podcasts, interactive websites, and digital platforms that provide students with diverse inputs in English. For example, watching videos or listening to podcasts that feature native speakers can expose students to authentic accents, vocabulary, and real-life language use. These multimedia tools offer students examples of how language is used in natural contexts, rather than in the rigid and often artificial settings of traditional textbooks. Teachers can use multimedia to illustrate concepts, introduce new vocabulary, or showcase real-life situations where English is used.

For instance, a teacher might show a short documentary or a video clip of a conversation in an English-speaking country, followed by a discussion or role-playing activity based on the video's content. By doing so, students are not only exposed to authentic language but are also invited to engage in real-world contexts that require them to use English in a meaningful way. These activities encourage practical use of language in contexts such as ordering food in a restaurant, navigating travel situations, or participating in a business meeting.

Similarly, teachers can incorporate real-life scenarios into lessons, using activities like simulations, debates, or problem-solving tasks that mirror real-world communication. For example, students can role-play situations such as making a reservation, negotiating a deal, or planning a trip. These scenarios push students to use functional language and engage in task-based communication, which reflects the kinds of language skills they would need in everyday life. This type of contextual learning helps students see the value of language beyond academic settings and boosts their confidence in using English in real-world contexts.

Moreover, incorporating real-life contexts into English lessons can make learning feel more relevant and connected to students' personal lives. By allowing students to talk about their interests, current events, or

experiences in English, teachers can make lessons feel more meaningful and enjoyable. For example, asking students to discuss their favorite movies, music, or hobbies in English gives them the opportunity to use language in a personal context that resonates with them. This connection between language learning and students' lives can increase motivation and engagement, making it more likely that students will actively participate in class activities.

In addition, the integration of multimedia and real-life contexts can serve to reduce language anxiety. When students engage with materials that reflect their everyday experiences, such as videos of real-life conversations or audio clips of native speakers, they may feel more comfortable and less self-conscious about speaking. These resources provide students with a model of authentic communication, which can help them feel more confident and prepared to use English in their own conversations. The visual and auditory stimuli present in multimedia also make language more accessible and memorable, aiding in retention and comprehension.

By incorporating multimedia and real-life contexts into oral lessons, teachers not only make lessons more engaging and interactive but also provide students with the tools they need to use English in real-world situations. These strategies foster real communication, build practical language skills, and reduce anxiety, all of which contribute to increased participation and improved language proficiency. This approach helps bridge the gap between classroom learning and the practical application of English, creating a more motivating and effective learning environment for students.

4.3 Offering Feedback and Reinforcement to Boost Confidence

Providing feedback and reinforcement is essential for fostering student participation and boosting confidence in English oral lessons. Positive feedback helps students understand what they are doing well while offering constructive guidance on areas for improvement. Reinforcement, particularly when students receive recognition for their efforts, helps create a supportive and motivating environment, encouraging them to take risks and participate more actively. The combination of constructive feedback and reinforcement fosters a positive classroom atmosphere, where students feel safe to experiment with language without fear of judgment or failure.

Effective feedback should be specific, clear, and actionable, focusing not just on mistakes, but also on the aspects of language use that students perform well. For example, instead of simply saying "good job," teachers can point out particular strengths, such as pronunciation or the use of new vocabulary. This not only boosts the student's confidence but also makes them aware of what they are doing correctly, reinforcing positive behaviors. Constructive feedback should also be provided in a way that encourages improvement. For instance, when a student makes a mistake, the teacher can gently correct it in a supportive manner, highlighting the areas that need attention while also offering suggestions for improvement.

Teachers must also recognize the importance of positive reinforcement in encouraging participation. Praise and recognition, when used effectively, can significantly boost a student's confidence and motivation. Instead of offering vague praise like "well done," teachers should focus on specific aspects of the student's performance, such as "you did a great job using the new vocabulary in your response." This specific reinforcement helps students understand exactly what they did well and motivates them to continue engaging in similar behaviors. Recognizing even small steps of progress can have a profound impact on a student's willingness to participate, especially for those who might otherwise remain silent due to self-doubt or anxiety.

In addition to verbal feedback, teachers can also employ other forms of reinforcement, such as certificates or classroom recognition, to encourage consistent participation. Setting achievable goals, such as participating in a certain number of discussions or responding to a set number of questions during a lesson, can further help students stay motivated. Achieving these goals can be celebrated, reinforcing the idea that their efforts are valued and that speaking English is both rewarding and beneficial.

Creating a safe and supportive environment for risk-taking is also critical to fostering student confidence. Language learning involves trial and error, and students are more likely to participate when they feel their mistakes will not lead to ridicule or embarrassment. Teachers can help create a psychologically safe environment by promoting the idea that mistakes are a natural and essential part of learning. This atmosphere allows students to take risks, knowing that they will not be criticized harshly for their errors. Instead, mistakes are seen as opportunities for growth, and students are encouraged to view each speaking activity as a chance to improve rather than a test of their abilities.

Ultimately, offering feedback and reinforcement helps students build self-confidence, which is essential for active participation in language lessons. By focusing on specific, constructive feedback and offering positive reinforcement, teachers can motivate students to engage more in speaking activities. When students feel recognized for their efforts and confident in their ability to improve, they are more likely to participate actively, leading to better oral proficiency and communication skills.

5. Classroom Management Techniques to Address Silence

Classroom management plays a pivotal role in fostering student participation, especially in oral English lessons. Effective classroom management can create a conducive environment where students feel encouraged to speak and engage. One critical technique is strategic seating arrangements. When students are arranged in small groups or pairs, rather than traditional rows, they are more likely to engage in conversation. This layout reduces the intimidation factor of speaking in front of a large class and promotes peer interaction, allowing students to practice their speaking skills in a low-pressure environment. Additionally, mixed-ability groups can be particularly beneficial, as stronger students often motivate or support their peers, creating a more inclusive classroom atmosphere.

In conjunction with seating arrangements, it's essential to establish clear expectations for participation at the outset of the course. Teachers can set specific participation goals for each lesson, such as ensuring that every student speaks at least once or engages in a group discussion. This encourages students to take responsibility for their participation and promotes accountability within the classroom. By making participation a regular part of the lesson plan, students begin to understand that speaking is an integral part of the learning process, rather than an optional activity.

Another important strategy is the use of non-verbal cues to encourage engagement. Teachers can use eye contact, hand gestures, and other forms of positive body language to communicate encouragement and approval. These small signals can reassure students and make them feel valued, even if they are initially reluctant to speak. A teacher's supportive body language can create a welcoming environment where students feel comfortable taking risks with language use.

Finally, fostering a safe classroom environment where mistakes are normalized is essential to reducing the fear of speaking. Teachers should emphasize that making errors is an inherent part of learning and that students are not expected to be perfect. Creating this safe space encourages students to view language learning as a process, rather than a performance. This perspective helps reduce anxiety, which is one of the main contributors to silence in the classroom, and encourages more active participation.

6. Challenges in Addressing Silent Classrooms

While many strategies exist to address the issue of silent classrooms, teachers often encounter significant challenges in engaging students who are reluctant to participate. One of the major challenges is the persistent language anxiety that many students experience, which can be a strong deterrent to speaking. Despite the implementation of supportive strategies, anxiety can still prevent students from speaking, particularly in front of their peers. Even if teachers create a non-judgmental environment, the fear of making mistakes or being laughed at can outweigh the desire to participate, leading students to remain silent. This fear is often exacerbated in large classrooms, where students feel less individual attention and may feel more vulnerable when speaking.

Additionally, classroom size and the teacher-student ratio present ongoing challenges. In large classrooms, teachers may struggle to engage every student equally. With limited time and resources, it can be difficult for teachers to ensure that each student receives the individual attention needed to address their specific anxieties or barriers to participation. This can lead to certain students withdrawing from the conversation altogether, as they may feel overshadowed or overlooked in a crowded classroom.

Another challenge lies in the pressure to meet curriculum requirements and prepare students for exams, particularly in educational systems where language proficiency exams are highly emphasized. Teachers often feel the pressure to prioritize exam preparation over interactive, communicative activities. This creates a dilemma, as traditional methods of instruction—such as lectures or grammar drills—tend to promote passive learning rather than active speaking. As a result, teachers may find it difficult to balance interactive, participatory teaching methods with the demands of standardized testing and curriculum goals.

Lastly, some students may simply lack the motivation to participate, especially if they do not see the immediate value in speaking activities. This can occur when students perceive English as something to be studied for exams, rather than a tool for communication. In such cases, no matter how supportive the teacher's strategies are, students may continue to remain silent if they do not understand the relevance of speaking English in their daily lives.

7. Long-Term Impact of Teacher Strategies

The long-term impact of teachers' strategies in addressing silent classrooms can significantly influence students' language development and participation in future lessons. When teachers consistently employ strategies that encourage student engagement—such as interactive activities, feedback, and a supportive classroom environment—students are more likely to develop confidence in their speaking abilities. This confidence can lead to greater participation in future lessons, which, in turn, helps them develop fluency in English. Over time, these strategies can create a shift in students' attitudes, where speaking in English becomes a normal and enjoyable part of their learning experience.

Additionally, the positive impact of these strategies extends beyond individual lessons. When students regularly engage in oral activities and receive constructive feedback, they are more likely to retain language skills over the long term. Speaking skills, in particular, are most effectively acquired through regular use, and when students feel confident participating, their oral proficiency increases. This improvement in language proficiency can have lasting benefits, not just for academic success but also for students' ability to use English in real-life situations.

Moreover, the safe, supportive classroom environment that teachers cultivate can have lasting effects on students' motivation to continue learning English. When students feel comfortable taking risks and making mistakes without fear of judgment, they are more likely to view language learning as a positive and rewarding experience. This attitude shift can result in a lifelong appreciation for English and a greater willingness to engage with the language outside the classroom, whether in personal, academic, or professional contexts.

Ultimately, the long-term effects of these strategies contribute to a positive cycle of active participation and language development, where students continually improve their speaking skills and gain confidence in their ability to use English effectively. These strategies not only help students succeed academically but also prepare them for real-world communication, making them more competent and confident in using English beyond the classroom setting.

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Urban–Rural Divide in Early Childhood Teacher Professional Development in South Africa

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Abstract

This paper examines the persistent urban–rural divide in early childhood care and education (ECCE) teacher professional development in South Africa. Drawing on peer-reviewed literature, policy analysis, and comparative data, the study explores how geographic location influences access to accredited training, qualification levels, institutional support, material resources, and professional identity. Urban ECCE teachers benefit from proximity to higher education institutions, regular workshops, and structured career pathways, while rural practitioners often face isolation, under-resourcing, and lack of formal recognition. The paper further analyses structural and contextual constraints in rural settings, such as infrastructural deficits, digital exclusion, and policy implementation failures. Through teachers' lived experiences, the paper presents a grounded understanding of the inequities that shape professional development trajectories. Comparative indicators highlight the systemic nature of these inequalities and the urgent need for targeted, context-sensitive policy interventions. The paper concludes with practical recommendations to strengthen rural ECCE teacher development through inclusive governance, localized training models, resource redistribution, and the recognition of experiential knowledge.

Keywords: early childhood education, professional development, teacher training, South Africa, rural education

1. Introduction

The disparity in early childhood education (ECE) teacher professional development between urban and rural areas in South Africa remains a critical issue that undermines the equity and quality of foundational education. The professional development of Early Childhood Care and Education practitioners is shaped by access to training, teaching resources, institutional support, and socio-economic conditions. These factors differ starkly across geographic regions, creating uneven educational landscapes that have long-term implications for both learners and teachers.

Early childhood education in South Africa plays a crucial role in shaping the cognitive, emotional, and social development of young children, particularly during the formative years between birth and six years of age. This period has been widely recognized as the most sensitive phase of human development. It requires professionally trained educators who are capable of implementing age-appropriate pedagogies, understanding child psychology, and fostering inclusive learning environments. Inadequate teacher training directly translates into lower learning outcomes, developmental delays, and the perpetuation of inequality, particularly for children born into rural and disadvantaged communities. Professional development, when accessible and well-structured, enhances teachers' instructional skills, deepens their subject knowledge, and builds confidence. It enables teachers to stay updated with evolving educational practices and child-centered methodologies, which are essential in a rapidly changing socio-educational context.

In urban centers, teachers benefit from structured opportunities for in-service training and a more robust pipeline

into higher education institutions. Urban schools tend to be better resourced and integrated into government or NGO-supported development programs. These schools are frequently targeted for pilot projects, workshops, and research initiatives led by universities or provincial departments of education. Teachers have better access to transport, internet connectivity, and professional networks, all of which foster collaborative learning and continuous improvement. Urban teachers often enjoy the presence of trained mentors, educational psychologists, and subject specialists who provide formal and informal guidance. These systems of support not only strengthen professional identities but also improve retention and job satisfaction. The presence of multiple professional development pathways, such as postgraduate certificates and continuing education modules, allows urban-based educators to upskill with relative ease. As a result, urban children benefit from more consistent, high-quality interactions with trained practitioners.

In contrast, rural environments are marked by infrastructural deficits, institutional neglect, and logistical barriers that significantly impede teacher development. Many rural areas still lack basic classroom infrastructure such as electricity, running water, and sanitation. Multigrade teaching remains a common phenomenon, with a single teacher responsible for children of varying ages and developmental stages. This situation complicates curriculum delivery and limits opportunities for pedagogical specialization. Teachers in rural communities often work in isolation, lacking access to peer support or mentorship. They may not be aware of available training programs, or even if they are, geographical remoteness and financial constraints may prevent them from participating. These educators frequently operate in contexts where professional growth is not a priority of the district administration, and where inspection or support visits from education officials are rare or perfunctory. In some cases, rural early childhood educators are community volunteers with little to no formal training, reflecting a broader systemic undervaluation of early childhood care and education as a professional field.

The disparity is compounded by the socio-economic divide that mirrors South Africa's broader historical legacy of apartheid spatial planning and economic exclusion. Rural provinces such as Eastern Cape, Limpopo, and KwaZulu-Natal experience higher rates of poverty and unemployment, which directly impact the availability of public funds for teacher training programs. Parents and community stakeholders in these areas may lack the financial resources or awareness to advocate for improved ECE services. This economic deprivation affects both the supply and demand sides of professional development. On the supply side, institutions face difficulty in recruiting skilled trainers willing to work in remote areas. On the demand side, teachers are unlikely to prioritize or afford continuous professional education when their salaries are delayed, irregular, or insufficient. The lack of incentives to participate in training programs further reduces the effectiveness of existing capacity-building efforts.

Another dimension of the urban–rural divide is the lack of culturally responsive training that takes into account the lived realities of rural teachers. Many professional development programs are designed with urban pedagogical contexts in mind. These programs assume access to teaching and learning materials, stable classroom sizes, and well-defined support structures. When rural teachers are trained in methodologies that they cannot implement in their settings, the training becomes irrelevant or even demoralizing. A mismatch between training content and on-the-ground realities reduces teacher agency and diminishes the likelihood of sustained pedagogical change. Effective professional development for rural educators must be localized, practice-based, and tailored to the specific challenges of under-resourced environments. It must empower teachers to innovate within their constraints rather than emulate models that are unattainable in their contexts.

Language and cultural diversity also influence the content and delivery of teacher professional development in both urban and rural South Africa. While urban centers may attract multilingual practitioners and benefit from linguistic resources provided by the Department of Basic Education, rural educators frequently operate in monolingual settings with limited exposure to multilingual pedagogy. This is particularly concerning given South Africa's eleven official languages and the necessity for early childhood teachers to build foundational literacy in children's home languages. Professional development programs that do not equip rural educators with strategies for bilingual education risk exacerbating language gaps and contributing to poor literacy outcomes. It is important to understand that language is not merely a medium of instruction but also a tool for affirming children's identities and connecting learning to cultural knowledge systems.

The challenges faced in rural early childhood teacher development cannot be attributed solely to distance or poverty. They are symptomatic of deeper systemic issues in South Africa's education system, including fragmented governance, inconsistent policy implementation, and insufficient collaboration between training institutions and communities. Teacher development for early childhood education has not been prioritized within national strategic frameworks to the same extent as primary or secondary education. Where frameworks exist, such as the National Integrated Early Childhood Development Policy, their implementation in rural areas has been weak or uncoordinated. This policy neglect reflects a broader ambivalence in valuing early childhood education as foundational to long-term national development.

In light of these challenges, addressing the urban–rural divide in teacher professional development requires more than policy declarations. It demands an intentional restructuring of the professional development landscape to ensure that rural educators are not left behind. This involves investing in mobile training units, community-based mentorship networks, and distance-learning technologies adapted for low-connectivity areas. It requires forming partnerships with local teacher colleges, non-governmental organizations, and community leadership to co-create development models that are relevant, sustainable, and scalable. The success of South Africa's early learning system depends on elevating the capacity and confidence of educators across all regions, particularly in the country's most marginalized rural communities. Without such a commitment, the vision of equitable, high-quality early childhood education will remain unfulfilled.

2. Uneven Access to Training and Qualifications in Early Childhood Teacher Development in South Africa

The professional development of early childhood care and education (ECCE) practitioners is foundational to the quality of learning experiences children receive in their early years. In South Africa, ECCE plays an especially critical role in mitigating the effects of socio-economic disadvantage and promoting school readiness among vulnerable populations. Yet one of the most persistent and damaging challenges in the system is the uneven access to training and professional qualifications between urban and rural early childhood teachers. This inequality reflects structural, geographic, financial, and institutional divides that leave rural practitioners at a distinct disadvantage in their professional growth and, by extension, in their ability to deliver quality education to children.

Access to training for ECCE practitioners in urban areas is often embedded within a structured network of government-supported institutions, accredited training providers, and higher education opportunities. Urban teachers have significantly more exposure to standardized qualification pathways such as the National Diploma in Early Childhood Development or the Higher Certificate in ECD, both of which are recognized by the South African Qualifications Authority. These qualifications open pathways for upward mobility within the profession and ensure a certain baseline of pedagogical knowledge. Teachers based in metropolitan areas are also more likely to have the resources to engage in continuing professional development. These include financial means to pay tuition or course fees, stable access to electricity and internet for distance learning, and the time flexibility required to attend workshops or online modules.

In rural communities, these opportunities are either non-existent or inaccessible to the majority of ECCE teachers. According to Zulu et al. (2022), the majority of ECCE teachers working in rural Durban had no formal professional qualifications. Many had entered the profession as volunteers or caregivers without any formal training in child development, learning theory, or instructional practice. Their work is often driven by a sense of duty to the community rather than by institutional or career incentives. These practitioners frequently operate outside the formal ECD system and remain invisible in national databases, making it difficult for policymakers to plan and allocate resources effectively.

The geographic isolation of rural areas creates significant logistical barriers to training. Many rural educators live far from training institutions, and transportation infrastructure is either underdeveloped or costly. Attending a weekend training workshop may require hours of travel, an overnight stay, and financial expenses that teachers cannot afford on modest or irregular incomes. This isolation is not only physical but also institutional. Rural ECCE centers are seldom included in the circuits of professional development that urban schools benefit from through partnerships with universities, NGOs, or government pilot programs. These centers often lack internet connectivity or digital devices that would enable participation in online training, cutting them off from the growing body of open-access or blended learning professional development content.

Financial barriers are among the most decisive factors in the qualification gap. Many rural ECCE practitioners receive stipends rather than formal salaries and often rely on community donations or parental contributions for income. In some cases, these stipends are delayed or inconsistent due to bureaucratic inefficiencies in local governance structures. The cost of accredited training—ranging from tuition fees to textbook purchases—poses a significant burden. Unlike formal schoolteachers who may qualify for bursaries or government-funded training programs through the Department of Basic Education, ECCE teachers are often categorized under social development or community services and thus fall outside traditional funding frameworks. This administrative misalignment results in many rural teachers being excluded from funding schemes designed to enhance qualifications and capacity.

The uneven access to training is also evident in the curriculum content and delivery models of existing professional development programs. Urban teachers receive instruction that aligns with national policy priorities, contemporary pedagogical methods, and assessment strategies that reflect current research in child development. Many training programs include practical components such as internships or mentoring arrangements with experienced practitioners. These opportunities allow urban teachers to develop a repertoire of skills grounded in observation, reflection, and real-world classroom dynamics. In contrast, rural teachers who do access training

often receive content that is decontextualized or overly theoretical. The curriculum may be delivered in a language that is not the mother tongue of participants, and trainers may lack sensitivity to the constraints of rural teaching contexts. When training materials are not translated into local languages or adapted to reflect the lived realities of rural educators, they lose relevance and impact.

The qualification gap also has intergenerational consequences. Children in rural ECCE centers miss out on the benefits of high-quality early learning experiences that research has linked to long-term cognitive development, improved school performance, and higher levels of social and emotional well-being. Teachers who lack training are less likely to recognize signs of developmental delays, to structure play-based learning activities, or to use formative assessment strategies that track individual progress. This gap compounds over time as children transition into formal schooling without the foundational skills needed to succeed. In some cases, it can lead to grade repetition, dropout, or the reinforcement of socio-economic inequalities.

The lack of qualifications among rural ECCE teachers also affects their professional identity and morale. Teachers who have no pathway toward certification or advancement may feel undervalued and isolated from the broader educational profession. This sense of exclusion reduces motivation and contributes to high turnover, further destabilizing the continuity and consistency required for effective early childhood education. Unlike urban teachers who may benefit from collegial networks and professional recognition, rural teachers often work in silence and anonymity. They are seldom invited to participate in educational conferences or policy consultations, which reinforces a cycle of marginalization and disempowerment.

There is a strong case to be made for targeted interventions that expand training access for rural ECCE teachers. These could include the establishment of satellite campuses of teacher training colleges in rural provinces or the development of mobile training units that travel to remote communities. Digital learning platforms could be adapted for use in low-bandwidth environments, using offline content and portable devices. Community-based training models that involve experienced local educators as facilitators could bridge the gap between national curriculum standards and local relevance. Financial incentives such as conditional bursaries, stipends for training attendance, and government recognition of informal prior learning would also encourage participation and retention.

Policy reforms must prioritize the formal inclusion of rural ECCE teachers into national teacher development frameworks. This means creating clear professional pathways, improving coordination between the Departments of Basic Education and Social Development, and integrating ECCE into the broader teacher qualification and accreditation system. It also requires reliable data collection and monitoring systems to track who is teaching, what qualifications they hold, and what training they need. Without accurate data, interventions cannot be effectively targeted or evaluated. The role of civil society and non-governmental organizations remains important but cannot substitute for systemic policy action. These organizations can support innovation, facilitate capacity building, and pilot context-sensitive models, but the state must ensure long-term sustainability and scalability.

In conclusion, uneven access to training and qualifications among ECCE practitioners in South Africa is a major obstacle to educational equity and quality. It reflects deeper issues of geographic marginalization, economic inequality, and institutional fragmentation. Addressing this divide is not only a matter of justice for rural teachers but a national imperative for early childhood development. By investing in accessible, relevant, and supported training opportunities, South Africa can begin to close the gap and ensure that all children, regardless of where they are born, have the chance to learn and thrive under the guidance of well-trained educators.

3. Structural and Contextual Constraints in Rural Areas Affecting Early Childhood Teacher Professional Development in South Africa

The professional development of early childhood care and education (ECCE) teachers in South Africa is deeply influenced by the structural and contextual realities of the settings in which they work. In rural areas, these realities are shaped by historical underdevelopment, geographic isolation, and persistent socio-economic challenges. The structural and contextual constraints in rural environments are not incidental; they are the product of long-standing patterns of unequal investment and governance inefficiencies. These factors collectively limit the ability of rural ECCE practitioners to access professional development opportunities and to implement effective early learning strategies in their classrooms.

Infrastructure in rural South African communities is frequently inadequate or entirely absent. Many early childhood development centers in these areas are housed in temporary structures such as corrugated iron shacks, church halls, or abandoned municipal buildings. These structures often lack electricity, plumbing, insulation, or sufficient space to accommodate growing numbers of children. Without basic infrastructure, teachers cannot create safe, stimulating environments conducive to early learning. Classrooms without proper ventilation, heating, or sanitation facilities compromise children’s health and safety and limit the range of pedagogical

activities teachers can perform. For example, learning activities that rely on visual aids, digital tools, or manipulatives are impossible when classrooms lack electricity or are exposed to environmental elements such as wind or rain.

Teaching materials and learning resources are also in short supply in many rural ECCE settings. Teachers frequently must rely on homemade or recycled materials, which may not align with curriculum standards or developmental appropriateness. Storybooks, puzzles, art supplies, and tactile learning tools are often unavailable. Access to age-appropriate play equipment, educational posters, or classroom furniture is limited. When teachers do not have access to these materials, their ability to implement the play-based and child-centered approaches promoted in national ECCE curricula is severely compromised. Without the resources to scaffold learning effectively, teachers are forced to resort to rote memorization or unstructured free play, which fails to support foundational learning outcomes.

The problem of multi-grade and mixed-age classrooms presents another unique challenge in rural ECCE settings. Many rural centers group children from infancy to pre-school age into a single space due to staffing shortages and limited infrastructure. Teachers must simultaneously attend to the diverse needs of infants, toddlers, and older pre-schoolers with minimal support. This situation demands a high level of skill in classroom management, differentiated instruction, and curriculum integration. However, most rural teachers are not provided with specialized training in managing multi-age groups. The lack of professional development opportunities specific to the complexities of rural teaching contexts leaves these educators unprepared and overwhelmed. This environment leads to teacher burnout and limits the educational experiences of all children in the classroom.

Teacher isolation is another major constraint in rural areas. Many ECCE practitioners in remote communities work alone or with one unqualified assistant. There is little opportunity for peer collaboration, team teaching, or shared reflection on practice. This isolation reduces the professional stimulation and feedback that teachers in urban environments often take for granted. Teachers in rural settings rarely have access to mentors, education specialists, or professional learning communities that can offer guidance and encouragement. Without a community of practice to engage with, rural teachers may feel unsupported, undervalued, and disconnected from broader educational discourses. This isolation can have a demoralizing effect and contribute to high attrition rates among ECCE professionals in rural communities.

Transport infrastructure poses significant barriers to professional development access in rural South Africa. Roads are often in poor condition, unpaved, or impassable during the rainy season. Many teachers do not own private vehicles and rely on inconsistent public transportation to reach training venues, which may be located far from their communities. Attending a professional development workshop could require several hours of travel in each direction, often at considerable personal expense. Teachers may need to pay for taxis, meals, and overnight accommodation, none of which are reimbursed by training providers. These costs are prohibitive for many rural practitioners, particularly those earning small stipends or working without formal remuneration. As a result, training opportunities are often inaccessible in practice, even when they exist on paper.

Access to digital infrastructure is limited in many rural areas, which restricts the potential for distance learning and online professional development. Internet coverage is inconsistent or absent in remote locations, and data costs remain prohibitively high for many individuals. Teachers may lack access to smartphones, laptops, or digital literacy skills required to engage in virtual training programs. This digital divide is particularly damaging in a context where more professional development opportunities are being offered online in response to cost-efficiency pressures and technological advancements. When rural teachers are excluded from digital learning opportunities, the professional gap between them and their urban counterparts continues to widen.

The lack of alignment between policy frameworks and rural implementation capacity also constrains teacher development. While South Africa has adopted progressive early learning policies, including the National Curriculum Framework for children from birth to four years and the National Integrated Early Childhood Development Policy, these documents often fail to address the lived realities of rural teachers. National training programs may assume the presence of support structures, learning resources, and enabling environments that do not exist in rural contexts. Policies are often written in technical language and disseminated without adaptation to local languages or practical scenarios. Rural practitioners are left to interpret and implement these policies without the training, support, or contextual tools necessary for success. This creates a disconnect between policy aspirations and actual practice.

Administrative fragmentation between national departments exacerbates the challenges faced by rural ECCE teachers. Early childhood development in South Africa is shared across multiple government departments, including the Department of Basic Education and the Department of Social Development. This divided responsibility leads to confusion over who is accountable for training, resource allocation, and oversight. Rural teachers may be registered with local municipalities or NGOs rather than formal education systems, making it

difficult for them to access government-funded professional development programs. The absence of centralized data on ECCE practitioners also means that many rural teachers are not tracked in national statistics and are therefore not considered when training targets are set. The result is an uneven distribution of resources and support, with rural areas consistently receiving less attention.

Cultural and linguistic diversity in rural areas introduces additional complexities into teacher training and development. Many rural communities in South Africa speak languages that are underrepresented in educational materials and training programs. ECCE practitioners may not receive training in their home language or in the language of instruction they are expected to use with children. This creates barriers to understanding course content and applying learned techniques in the classroom. Rural communities may also have distinct cultural values and child-rearing practices that are not reflected in standardized training curricula. When professional development does not engage with local knowledge systems or community norms, it risks being perceived as irrelevant or even alienating. Teachers may struggle to reconcile formal pedagogical methods with local expectations and may receive limited community support for their professional roles.

Resource allocation from provincial and national budgets often favors urban centers and more densely populated areas. Rural schools and ECCE centers typically receive lower per-child funding due to logistical difficulties in distributing materials and services to remote areas. Training workshops are more frequently held in urban hubs for reasons of convenience and cost-effectiveness, which further disadvantages rural teachers. This pattern of unequal investment reflects a broader failure to prioritize early childhood education in rural development agendas. Until rural ECCE is recognized as a critical component of national growth and equity strategies, its practitioners will continue to operate under conditions that hinder their development and effectiveness.

The structural and contextual constraints facing rural ECCE practitioners in South Africa form a web of interrelated challenges that limit their access to professional development and reduce the quality of education offered to young children. These constraints are embedded in infrastructure deficits, resource scarcity, geographic isolation, administrative inefficiencies, and policy misalignment. Addressing these challenges requires more than programmatic interventions; it demands systemic change that prioritizes rural education as a cornerstone of social justice and national development. This includes targeted investments in infrastructure, transportation, digital connectivity, and context-sensitive training models. It also involves empowering rural teachers through inclusive policies, localized support networks, and sustained government commitment to educational equity. By responding to the real conditions under which rural ECCE practitioners work, South Africa can begin to transform early childhood education into a truly inclusive and transformative sector.

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5. Policy Gaps and Implementation Failures in Early Childhood Teacher Development in Rural South Africa

In South Africa, the development of early childhood education (ECE) policy has evolved significantly since the end of apartheid. Policies have articulated a commitment to universal access, equitable provision, and the professionalization of the early childhood workforce. These policy frameworks, including the National Integrated Early Childhood Development Policy of 2015 and the National Curriculum Framework for children from birth to four years, present ambitious goals for improving the quality and accessibility of ECE. While these policies offer progressive visions for early learning, their translation into practice reveals major gaps in planning, coherence, coordination, and execution. Nowhere are these failures more visible than in rural communities where professional development for early childhood teachers remains largely theoretical rather than operational.

At the heart of the problem lies a fundamental disconnect between national policy ambitions and the local-level realities in rural South Africa. The policy discourse often assumes a level of infrastructure, institutional capacity, and administrative efficiency that is simply absent in many rural settings. Policy documents are written with a universalist tone, proposing standardized interventions that do not differentiate between metropolitan, peri-urban, and deeply rural contexts. This results in a one-size-fits-all approach that fails to account for local disparities. Rural teachers find themselves excluded not by the wording of policy but by the assumptions embedded within it. The lack of contextualization within policy frameworks leads to implementation strategies that are mismatched to the environments in which rural teachers operate.

Policy implementation is often hindered by fragmented governance structures that divide responsibility for early childhood education across multiple government departments. Historically, ECE in South Africa was managed under the Department of Social Development, with only partial oversight from the Department of Basic Education. This dual management model has contributed to confusion over institutional mandates, overlapping responsibilities, and duplicated efforts. Early childhood teacher development falls through the cracks because there is no unified structure responsible for overseeing professional development pathways. This structural fragmentation delays the roll-out of training programs, leads to inconsistent messaging to practitioners, and complicates accountability mechanisms. Without a single authority taking ownership of ECE professional development, rural practitioners are left to navigate a disjointed and inaccessible system.

Funding allocations for early childhood education often reflect broader political and economic priorities that disadvantage rural communities. National and provincial budgets tend to favor school-based education and overlook community-based ECE centers where most rural children are enrolled. Professional development for early childhood practitioners receives limited direct funding and is often treated as an add-on to broader education or social development budgets. Even when funds are allocated, they are rarely ring-fenced for rural teacher development. Provinces with large rural populations like the Eastern Cape or Limpopo struggle to deliver on policy promises due to constrained fiscal environments. Budget disbursements are frequently delayed or underspent because of weak financial management systems at the district level. The lack of consistent funding streams translates into sporadic training initiatives that cannot be sustained or scaled.

Another critical policy gap lies in the weak monitoring and evaluation of professional development initiatives.

Policies often mandate training without providing mechanisms to track its quality, relevance, or impact. There is limited national data on how many early childhood teachers receive professional development annually, what kinds of training are offered, or how those programs are evaluated. This absence of monitoring frameworks leads to significant variation in the quality of training across provinces and providers. In rural areas, unaccredited or poorly structured workshops are sometimes the only form of professional development available. Teachers may receive certificates of attendance with little evidence of actual skill development. Without systematic evaluation tools, the effectiveness of training programs cannot be measured, and the insights necessary to inform policy revision remain unavailable.

The role of local government and district education offices in implementing national policy is also problematic. These offices are meant to serve as intermediaries between national directives and community-based application. In practice, rural district offices are often under-resourced, understaffed, and lacking the technical capacity to support professional development programs. Staff may not have experience in early childhood education or may be overwhelmed by competing administrative responsibilities. The absence of local coordination mechanisms means that even well-designed national training frameworks fail to reach the practitioners who need them most. Rural teachers report feeling neglected by local education officials and express frustration at the absence of support, guidance, or recognition for their work.

Teacher registration and regulation policies introduce additional complications. The South African Council for Educators (SACE) is the statutory body responsible for teacher registration, code of ethics enforcement, and continuing professional development. However, many rural early childhood teachers operate outside the formal school system and are not registered with SACE. These educators are often volunteers or community caregivers who entered the profession through informal routes. Policy frameworks do not always account for the diverse profiles of ECCE practitioners, particularly in rural contexts where traditional definitions of teaching do not align with professional criteria set by regulatory bodies. As a result, a large portion of the rural early childhood workforce remains excluded from official professional development programs, and their contributions are undervalued or unrecognized by formal systems.

Policy language often lacks clarity and specificity regarding the roles and responsibilities of different stakeholders. Terms like capacity building, upskilling, or in-service training are used interchangeably without consistent definitions. This ambiguity creates confusion in implementation planning. District officials may not know which providers to partner with, what content is considered acceptable, or how to monitor outcomes. Rural NGOs and community organizations, which often play a significant role in teacher development, are rarely involved in policy development processes and operate in silos with minimal coordination. Without clear implementation guidelines, partnerships, or accountability structures, the vision of professionalized rural early childhood education remains aspirational rather than actionable.

Language and communication gaps between policy architects and rural implementers further hinder effective implementation. Policies are typically written in English, with technical vocabulary that may not be easily understood by rural educators or community stakeholders. There is minimal effort to translate policy documents into local languages or to provide visual or oral versions for non-literate audiences. When practitioners do not fully understand the intent or content of policy directives, they cannot align their practices accordingly. Training programs built on poorly communicated policy goals are unlikely to lead to meaningful change at the classroom level.

Another gap in implementation arises from the failure to align policy timelines with rural realities. Training schedules are often set with urban centers in mind, expecting participants to attend multi-day workshops or courses during working hours. For rural teachers who are the sole caregiver in a center, stepping away from their responsibilities to attend training is not feasible. There is no system of substitute teaching or classroom coverage in community-based ECE settings. As a result, even when training is technically available, its design makes participation difficult or impossible for rural practitioners. Policies must recognize the time constraints and responsibilities of teachers in isolated contexts and adapt implementation models to reflect these constraints.

There is also a lack of innovation in professional development delivery modes that would account for rural limitations. Despite the widespread use of mobile technology in South Africa, policies have not prioritized the development of low-bandwidth or offline training content. Digital learning platforms are designed for users with stable internet connections, access to smart devices, and familiarity with e-learning formats. Rural teachers are often excluded from these innovations due to infrastructure deficits and digital illiteracy. Policy implementation could be strengthened by investing in hybrid models that combine face-to-face facilitation with mobile learning, but such models are seldom included in strategic planning documents or implementation budgets.

Policy gaps and implementation failures in South Africa's early childhood education sector result from misalignments between ambition and reality, fragmentation of responsibility, unclear guidelines, insufficient funding, and a lack of local adaptation. These systemic weaknesses disproportionately affect rural early

childhood practitioners who operate in contexts of scarcity and isolation. While the national policy environment has made significant strides in recognizing the importance of early childhood education, its ability to translate those ideals into practical improvements for rural teachers remains deeply constrained. Bridging the divide between policy and practice requires a reimagining of implementation strategies that center the lived experiences of rural educators, align stakeholders under a unified governance model, and allocate resources in ways that prioritize inclusivity and justice. Only through such a shift can South Africa ensure that professional development in early childhood education is not a privilege of geography but a right shared by all.

6. Voices from the Field: Teachers' Lived Experiences in South Africa's Urban–Rural Early Childhood Divide

The professional experiences of early childhood education (ECE) teachers in South Africa are shaped not only by policy, infrastructure, or curriculum but also by the everyday realities they navigate in their classrooms and communities. These lived experiences provide vital insight into the practical challenges, emotional labor, and personal adaptations that educators must undertake to fulfill their roles. For rural early childhood educators, in particular, the classroom is not only a site of teaching and learning but also a battleground for dignity, recognition, and professional survival. Their voices tell a story that is often absent from official reports, quantitative data, or government strategies. It is through these narratives that the true nature of the urban–rural divide becomes most visible and tangible.

Many rural teachers enter the field not through structured qualification routes but through necessity, compassion, or community expectation. These teachers often begin by volunteering in local centers or looking after children informally in their homes. Over time, what begins as a caregiving role evolves into a full-time occupation, often without accompanying training or formal recognition. Teachers describe how they were "just asked by the community" to help and gradually took on greater responsibility without guidance or clarity. Unlike their urban counterparts, who may complete certificates or diplomas before entering the profession, many rural educators learn on the job, observing others and improvising methods based on instinct or their own childhood experiences. This trajectory leaves them vulnerable to feelings of inadequacy and self-doubt, especially when measured against external standards or when compared to formally trained colleagues in better-resourced environments.

In interviews conducted across rural provinces such as Eastern Cape and Limpopo, teachers speak of profound isolation. Some educators work entirely alone, responsible for groups of twenty to thirty children ranging in age from infancy to six years. In the absence of co-teachers, assistants, or volunteers, the educator must simultaneously prepare meals, change diapers, design learning activities, provide emotional support, and ensure basic safety. The mental and physical toll of this daily routine is considerable. Teachers describe feelings of exhaustion, overwhelm, and emotional depletion. They express a longing not just for support in practical tasks but for someone to talk to about their challenges. The lack of peer collaboration means that opportunities to share ideas, reflect on practice, or receive feedback are virtually non-existent.

Professional development is frequently experienced not as an empowering process but as a source of frustration or exclusion. Rural teachers recount instances of training workshops being announced with little notice, held in distant towns they cannot afford to travel to, or delivered in formats that assume a level of prior knowledge they do not possess. Others recall participating in workshops that provided theoretical information but failed to offer hands-on strategies they could use in their own settings. One teacher shared that after a full-day workshop, she was handed a booklet and certificate but still felt uncertain about how to implement a learning plan in a classroom with no chairs, no posters, and no structured play area. These experiences leave educators feeling disoriented and disconnected from broader professional standards.

Feelings of invisibility are common among rural ECE teachers. Many report that they rarely, if ever, receive visits from district officials. Some say they have not seen an inspector or education officer in years. In some cases, when visits do occur, they are brief and focused on compliance rather than support. Teachers describe the anxiety of being judged for not having enough posters on the wall or for the absence of formal documentation, even when such shortcomings stem from a lack of materials and not from negligence. These encounters reinforce a perception that rural teachers are held to standards that ignore their constraints. Teachers feel they are being penalized for systemic failures over which they have no control. This dynamic fosters resentment and a sense of abandonment.

The psychological burden of these experiences is compounded by the absence of professional identity. Many rural early childhood educators are not recognized as teachers by the state, by their communities, or by themselves. They are referred to as "caregivers," "aunties," or simply "helpers," labels that diminish the pedagogical complexity of their work. This lack of recognition affects how they see themselves and their future. Teachers express uncertainty about career progression, unclear about whether there is a pathway for advancement or whether their efforts will ever lead to formal employment. Some recount years of service

without a written contract, pension benefits, or access to state support. This lack of clarity breeds a sense of hopelessness and contributes to high attrition rates in rural ECE centers.

Despite these challenges, many rural teachers demonstrate remarkable resilience and creativity. They speak of using natural materials such as stones, sticks, and leaves to teach counting or sorting. Some construct alphabet charts out of cardboard and repurposed food packaging. Others develop their own songs or games rooted in local languages and customs. These practices are not only evidence of innovation but of a deep commitment to the children in their care. Teachers speak of watching shy children become confident, of witnessing milestones like a first word or the ability to hold a pencil. These moments sustain them in the absence of external validation.

Community relationships also play a crucial role in shaping teachers' experiences. In some cases, local parents are highly supportive, donating food, helping clean the center, or encouraging their children to attend regularly. Teachers in such communities feel a sense of belonging and shared responsibility. In other contexts, especially where poverty is acute or where cultural attitudes toward early education are less developed, teachers face resistance or indifference. Some parents withdraw children from the center without notice, dismiss the importance of early learning, or question the need for structured play. Teachers must then play the role of advocate, explaining the value of early childhood education to families that may be struggling to meet basic needs. This advocacy is emotionally taxing and not always successful.

Urban teachers' experiences, by contrast, often involve more structured systems, larger staff teams, and institutional support. Urban educators are more likely to have access to mentors, scheduled training calendars, and professional development plans linked to performance appraisals. They interact regularly with peers, exchange ideas, and observe best practices. This environment fosters professional growth and a sense of forward movement. When urban teachers face challenges, they often have mechanisms to seek assistance or escalate concerns. In contrast, rural teachers work in a vacuum, without recourse or acknowledgment.

The divide between urban and rural experiences is also evident in access to information. Urban teachers are more likely to be informed of policy updates, training opportunities, or curriculum revisions. They may be part of mailing lists, WhatsApp groups, or school networks that disseminate this information. Rural teachers often rely on word of mouth, posters pinned to municipal notice boards, or irregular visits from NGOs. This information gap widens the professional divide and reinforces rural teachers' sense of exclusion from national education agendas.

Despite this, rural teachers remain committed to their work. Many speak of their hope that one day their centers will be formally recognized, their qualifications acknowledged, and their contributions valued. They dream of classrooms with bookshelves, outdoor play areas, and regular training that is tailored to their needs. They want to feel part of a larger professional community and to be seen as educators, not just caregivers. Their stories are not simply accounts of hardship but also of aspiration and agency.

Listening to these voices is essential for shaping policy and practice in ways that are responsive and equitable. Their insights reveal the human cost of systemic failure and the potential for transformation if development efforts are rooted in lived realities. Teachers are not passive recipients of policy but active interpreters of it. Their reflections can guide the creation of professional development programs that are accessible, relevant, and affirming. By centering their experiences, South Africa can move closer to realizing the goal of a high-quality, inclusive early childhood education system that honors the contributions of all educators, regardless of location.

7. Comparative Data: Urban vs. Rural Teacher Development Indicators

The comparison between urban and rural early childhood education (ECE) teacher development in South Africa reveals stark and persistent inequalities across multiple dimensions. These differences are not merely anecdotal but are supported by structured indicators emerging from peer-reviewed empirical research. Understanding these indicators is essential to grasp the scope and complexity of the urban–rural divide. These indicators extend beyond access to training and reflect a web of interconnected challenges involving qualification levels, material conditions, institutional support, digital access, and professional recognition.

Table 1. Urban vs. Rural ECE Teacher Development Indicators in South Africa

Indicator	Urban Areas	Rural Areas	Source
Access to Accredited PD Programs	Over 70% of ECE teachers have access to structured, accredited training through colleges, NGOs, or universities	Less than 35% have access to formal programs due to distance, cost, and limited institutional outreach	Zulu et al. (2022)
Qualified Teachers	Around 65% hold formal ECD	Roughly 30% hold a formal qualification; many are	Hartell & Steyn (2019),

(Diploma or Higher)	diplomas or higher qualifications	unqualified volunteers or community caregivers	Mukeredzi (2013)
Annual PD Workshop Attendance	Average of 3–5 workshops per year; includes in-service training, pedagogy, curriculum, and inclusive education	0–2 workshops per year; often focused on administration rather than instructional methods	Hannaway et al. (2018)
Teacher–Child Ratios	1 teacher per 10–15 children, allowing for targeted instruction and safer classroom environments	1 teacher per 20–30 children is common, often in multi-age, mixed-grade settings	Matjokana (2023)
Access to Online PD and Resources	High access; teachers use smartphones, internet, and learning platforms for webinars and digital content	Very limited access; high data costs, poor connectivity, and lack of devices inhibit online PD	Ang et al. (2023)
Institutional Support and Mentorship	Teachers are integrated into schools or NGOs with managers, mentors, and peer collaboration structures	Most teachers work alone or with untrained assistants; rarely receive mentoring or guidance	Mukeredzi (2013), Ang et al. (2023)
Availability of Teaching Materials	Regular supply of educational resources including books, puzzles, posters, and curriculum-aligned materials	Materials often self-made from scrap or donations; significant shortages in learning tools	Zulu et al. (2022), Matjokana (2023)
District-Level Support and Inspection	Frequent visits by education officers and ECD specialists provide monitoring, feedback, and policy updates	Rare or absent supervision from officials; teachers feel unsupported and disconnected from the system	Hannaway et al. (2018), Ang et al. (2023)
Clarity of Career Pathways	Urban teachers have clearer pathways to promotion, certification, and formal recognition	Many rural teachers lack formal contracts, promotion opportunities, or clarity on progression	Hartell & Steyn (2019), Mahadew (2024)
Professional Identity and Social Recognition	Urban ECE teachers are more likely to be seen and treated as professionals, including integration in school-based systems	Rural ECE workers often called “caregivers” or “community mothers”; their work is undervalued and underpaid	Zulu et al. (2022), Mukeredzi (2013)

One of the most prominent disparities lies in access to accredited professional development programs. In urban areas, a wide range of training opportunities is available through universities, teacher colleges, NGOs, and private providers. Teachers are more likely to encounter information about upcoming courses, and they have the infrastructure and networks to attend them. In contrast, rural teachers are often unaware of such programs or unable to participate due to financial, logistical, and infrastructural constraints. Studies show that less than 35 percent of rural teachers have access to any form of formal professional development, compared to over 70 percent of urban teachers who routinely engage with structured and accredited learning pathways (Zulu et al., 2022).

The gap in qualifications further underscores the inequity. While approximately 65 percent of urban ECE teachers hold formal diplomas or higher-level qualifications, rural areas lag behind significantly, with only 30 percent of teachers meeting this standard. The remaining rural workforce is composed largely of unqualified community-based caregivers who have entered the sector informally. These individuals may have years of experience but lack official certification and recognition. Their inability to access qualification programs is not a reflection of capability but of structural exclusion rooted in spatial, economic, and institutional disadvantage (Hartell & Steyn, 2019).

Professional development workshops also reveal uneven participation. Urban teachers typically attend between three and five workshops per year. These are facilitated by education departments, local NGOs, or early learning foundations and often cover content such as classroom management, inclusive education strategies, curriculum delivery, and child protection laws. Rural teachers, by contrast, attend far fewer workshops—often none in a given year, or one at most. When workshops are conducted in rural areas, they often lack depth, are held

irregularly, and are sometimes inaccessible due to transportation issues or short notice. As a result, rural teachers not only miss out on skill enhancement but also on opportunities to engage with peers and stay updated on sectoral developments (Hannaway et al., 2018).

Teacher–child ratios provide another revealing indicator. Urban ECE centers, often supported by government or well-funded private entities, maintain lower ratios, typically between 1:10 and 1:15. These settings allow teachers to implement differentiated instruction, monitor developmental milestones, and maintain a safe, nurturing environment. Rural centers, however, are chronically understaffed. Teachers are often responsible for 20 to 30 children in a single session, many of whom range in age from infants to six-year-olds. These multi-age, mixed-ability environments create serious pedagogical and safety concerns. Teachers find it difficult to provide individual attention or facilitate structured learning in overcrowded classrooms (Matjokana, 2023).

In the era of digital transformation, access to online learning and professional networks has become essential for continuous development. Urban teachers are increasingly using digital platforms for webinars, online courses, teaching resources, and professional communities. They have reliable internet, smartphones, and institutional support for digital participation. Rural teachers face a very different reality. Internet access in rural provinces remains limited, data costs are unaffordable, and many practitioners lack the devices or digital literacy needed to participate in online learning. This results in digital exclusion and deepens the professional isolation experienced by rural educators (Ang et al., 2025).

Mentorship and institutional support mechanisms are often available to urban teachers but largely absent in rural settings. Teachers in cities or large towns may be part of centers with administrative teams, assistants, or other professionals. This environment fosters collaboration, reflection, and emotional support. Rural teachers typically work alone. They do not benefit from structured mentoring or even informal peer observation. In many cases, the only form of external engagement comes from occasional visits by district officials, which are often infrequent and focused more on compliance than support. Without professional feedback, rural teachers struggle to grow or adapt their practice.

The availability of teaching materials further differentiates the experiences of urban and rural teachers. Urban centers are more likely to have a regular supply of learning materials including puzzles, storybooks, building blocks, posters, and art supplies. In rural areas, teachers rely heavily on improvised materials. Cardboard boxes become bookshelves, bottle caps become counting tools, and discarded paper becomes art resources. While this creativity is admirable, it reflects a broader issue: a systemic failure to resource rural centers with the basic tools needed for early learning. This materially constrained environment restricts the quality and diversity of the learning experience offered to children.

District-level inspection and oversight also differ significantly. Urban teachers often receive regular visits from ECD specialists who provide curriculum support, implementation guidance, and policy updates. These interactions help teachers stay aligned with national standards and give them a sense of professional inclusion. Rural teachers often go years without a single supervisory visit. When inspections occur, they tend to be brief, bureaucratic, and devoid of constructive feedback. This neglect reinforces the sense among rural practitioners that they are overlooked and undervalued by the education system.

Career progression and professional identity are closely linked. Urban teachers are more likely to have defined career pathways, be registered with the South African Council for Educators (SACE), and access government posts with benefits. Rural teachers may spend decades in the field without ever receiving a formal appointment, pension benefits, or salary security. Many are classified as “caregivers” rather than educators and operate in legal and professional ambiguity. This lack of status affects their confidence, their motivation, and their ability to advocate for themselves or their students.

Together, these indicators offer a sobering portrait of structural inequality in South Africa’s early childhood education system. The urban–rural divide in teacher development is not incidental; it is embedded in every level of the system. Addressing it will require a coordinated and well-funded national effort that targets the unique needs of rural educators, supports their professional growth, and ensures that every child, regardless of geography, receives quality early learning.

8. Conclusion and Policy Recommendations

The urban–rural divide in early childhood care and education (ECCE) teacher professional development in South Africa represents not just an educational concern but a reflection of deeper structural inequalities embedded in the country’s post-apartheid socio-economic landscape. The disparities in access to training, qualifications, institutional support, and working conditions between urban and rural early childhood practitioners are systemic in nature. They are not isolated occurrences, nor are they the result of individual shortcomings. They are the predictable outcomes of policy design that fails to account for local realities, logistical barriers rooted in spatial geography, and decades of uneven development planning.

Rural early childhood teachers in South Africa work in conditions that challenge the basic assumptions of national education policies. Many operate in spaces without electricity, running water, or secure buildings. Others work alone in overcrowded classrooms where age ranges are mixed, teaching resources are improvised, and professional isolation is a daily reality. Yet, despite these obstacles, many rural teachers demonstrate profound dedication, creativity, and an openness to learn. The willingness of rural teachers to engage with professional development, even when structurally disadvantaged, signals a powerful opportunity for intervention. These practitioners are not resistant to growth. They are often excluded from it by systemic neglect, bureaucratic inefficiencies, and an education infrastructure that has not been tailored to the needs of rural communities.

Addressing this divide begins with reimagining what equitable professional development looks like in a rural context. Traditional approaches that rely on centralized training facilities, full-time diploma programs, or internet-based content delivery fail to reach rural educators who are constrained by geography, cost, and digital exclusion. Policies must shift from uniformity to responsiveness. This means designing teacher development initiatives that are mobile, modular, and locally anchored. Mobile professional development units that travel to rural communities, offering short intensive workshops and mentoring opportunities on-site, could significantly reduce access barriers. These units could be staffed by experienced educators, curriculum specialists, and community education facilitators who understand the local context and can deliver training in relevant languages and pedagogical frameworks.

Investing in localized professional learning communities is another strategy that can create sustainable change. Teachers who work in isolation need spaces where they can reflect on their practice, share experiences, and receive feedback. Small, community-based peer networks, supported by regional education offices or non-governmental organizations, can foster collaborative professional growth without requiring long-distance travel. These networks should not be seen as replacements for formal qualifications but as stepping stones that increase engagement, build confidence, and prepare teachers for further accreditation.

Rural teacher development must also be supported by formal recognition mechanisms. Many rural teachers have years of experience but lack certification due to barriers in access, cost, or literacy. Recognition of prior learning (RPL) frameworks should be expanded and streamlined to allow experienced practitioners to gain formal credentials without repeating entry-level training. These pathways should be supported by targeted bursaries, mentorship programs, and bridging courses that acknowledge both the experience and the gaps rural teachers bring with them. Without formal recognition, these educators remain trapped in informal labor markets, excluded from employment benefits and long-term career growth.

Policy alignment is essential to making any of these strategies effective. At present, the fragmented governance of early childhood development in South Africa leads to duplication, inefficiencies, and gaps in delivery. Clear delineation of roles between the Department of Basic Education and the Department of Social Development, accompanied by joint planning and budget integration, is necessary. Professional development cannot be treated as an add-on or left to the discretion of under-resourced provincial departments. It must be centrally coordinated, adequately funded, and monitored with a specific rural inclusion mandate.

Equity in resource distribution must also be prioritized. Rural centers often lack the most basic learning materials. Teachers are expected to deliver on the same curriculum as their urban counterparts while using cardboard, plastic bottles, and leftover scrap. If training is not matched with material support, its effectiveness is diluted. A national resource provisioning strategy specifically tailored to rural early learning centers could address these disparities. This could include the distribution of age-appropriate educational kits, low-cost play materials, mobile libraries, and teaching guides adapted for low-resource settings.

Digital access is another area that demands targeted policy intervention. Rural teachers are increasingly being asked to participate in online professional development programs without the infrastructure or digital literacy to do so. Digital inclusion strategies for rural ECCE practitioners must include device provision, data subsidies, offline learning platforms, and digital skills training. Educational content must be made available in formats that do not require continuous internet access and should be designed with input from rural teachers to ensure usability.

Teacher well-being must also become a policy priority. Many rural educators work under significant emotional strain. They are responsible for large groups of children, often with no assistance, and receive little recognition or support from education officials. Professional development must extend beyond skills training to include emotional and psychological support. Peer counseling networks, wellness check-ins, and platforms for teacher voice and advocacy can create a culture of care that supports long-term retention and motivation.

A shift in policy discourse is required to reposition rural early childhood teachers not as beneficiaries of charity or support, but as professionals with unique expertise and value. Too often, rural education is framed in terms of

deficiency and lack. This framing leads to interventions that are compensatory rather than empowering. Instead, rural practitioners should be recognized as educators operating in complex environments with context-specific knowledge, resilience, and community ties that urban educators may not possess. Professional development that begins from this place of respect and partnership is more likely to succeed and be sustainable.

The moral and educational imperative to invest in rural early childhood professional development cannot be overstated. These educators serve children who are among the most socioeconomically vulnerable in the country. The quality of their teaching directly influences children's cognitive, emotional, and social development. Without strategic and sustained efforts to address the professional development needs of rural ECE teachers, South Africa risks reproducing cycles of inequality that begin in the earliest years of life.

As Mukeredzi (2013) notes, even unqualified rural teachers show a willingness to learn and grow when they are supported with contextualized resources and inclusive strategies. This is the starting point for change. The path forward requires vision, humility, and a commitment to listening. Policy should be shaped not only by experts in offices but also by those who stand each day in front of children, guiding them with limited tools and unlimited hope. South Africa's vision for inclusive education must include its most remote teachers not as an afterthought, but as a foundational priority in the nation's development agenda.

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Workplace-Based Learning Outcomes Among Hospitality Students in Guangxi Vocational Colleges

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Abstract

This study investigates the learning outcomes and structural challenges of workplace-based learning (WBL) programs among hospitality students in vocational colleges in Guangxi, China. Drawing from institutional case studies, student reflections, and industry engagement, the research examines how WBL contributes to skill development, professional identity formation, and employment preparedness. Findings reveal significant gains in both technical and soft skills, but also highlight structural gaps in supervision quality, program coordination, and equitable access to high-quality placements. Institutional responses include reforms in partner selection, reflective assessment integration, and faculty capacity-building. The study proposes a sustainable model for hospitality WBL rooted in tri-sector collaboration, data-driven program design, and student-centered support mechanisms.

Keywords: workplace-based learning, vocational education, hospitality internships, Guangxi, student development, experiential learning

1. Introduction

Guangxi Zhuang Autonomous Region, located in southern China, has become a key node in the nation's economic strategy to strengthen regional integration and international connectivity, particularly under the Belt and Road Initiative and the China-ASEAN Free Trade Area. With its rich cultural heritage, picturesque landscapes (such as Guilin and Yangshuo), and proximity to Southeast Asia, Guangxi has emerged as a fast-growing destination for both domestic and inbound tourism. According to the *Guangxi Department of Culture and Tourism*, the region recorded over 820 million tourist visits in 2023, generating tourism revenues exceeding 1 trillion RMB—a substantial portion of which relied on service and hospitality industries.

This economic growth has fueled a corresponding demand for skilled labor in hospitality, tourism management, hotel operations, and food services. To meet this labor demand, Guangxi's vocational education sector has strategically expanded its offerings in hospitality-related programs, aligning curriculum design and practical training with regional development goals. Cities like Nanning, Guilin, and Beihai have become educational hubs for hospitality talent, anchored by institutions such as Guilin Tourism University, Nanning College for Vocational Technology, and Liuzhou City Vocational College. These colleges not only offer diploma and certificate programs but also prioritize hands-on skill development through workplace-based learning (WBL).

The shift toward WBL is rooted in a national push to modernize vocational education. The Ministry of Education's 1+X certification policy and the 2019 *National Vocational Education Reform Implementation Plan* (commonly referred to as "20 Articles of Vocational Reform") explicitly advocate for integrating real-world experience into technical training. In Guangxi, this has translated into internship-integrated curricula, enterprise-college partnerships, and the construction of "dual-teacher" systems where instructors possess both academic and industry experience.

However, despite these reforms, mismatches remain between educational output and labor market demands. While college enrollment in hospitality majors has grown steadily, with over 18,000 students enrolled in tourism and hotel management programs across Guangxi as of 2022 (Guangxi Provincial Education Department), employers continue to express concerns about graduate readiness, soft skill deficiencies, and professional adaptability.

This tension between scale and quality highlights a central question: Does WBL truly equip students with the competencies needed for the contemporary hospitality sector in Guangxi? The remainder of this study takes this question as its core focus, critically examining how WBL programs are designed, perceived, and experienced in practice.

2. Models and Local Practices of WBL

2.1 National Policy and Guangxi's Regional Adaptation

In recent years, China's national agenda has placed unprecedented emphasis on strengthening vocational education through policy innovation and structural reform. Central to this transformation is the promotion of Workplace-Based Learning (WBL), conceptualized as a means of bridging the long-standing disconnect between classroom instruction and labor market demands. The "National Vocational Education Reform Implementation Plan" (2019) explicitly advocates for deeper integration of industry resources into vocational training, emphasizing dual-qualification faculty, enterprise involvement, and extended internships. This plan, alongside the 1+X certificate system, provides the blueprint for vocational institutions to incorporate professional qualifications directly into academic pathways, ensuring that students graduate with both diplomas and occupation-specific certifications.

Guangxi, as one of China's key border provinces and a designated pilot zone for vocational innovation under the China-ASEAN cooperation framework, has actively adapted these national directives to its local context. The Guangxi Department of Education launched a series of policy measures between 2020 and 2023 aimed at promoting school-enterprise cooperation, supporting cross-border hospitality skills training, and building talent pipelines aligned with regional tourism strategies. For example, vocational institutions in Guilin, Nanning, and Beihai have been incentivized to establish "order-based training programs", in which students are trained according to the recruitment and operational needs of specific hospitality enterprises.

Additionally, regional adaptations have included the development of localized WBL curricula that integrate ethnic cultural elements and cross-cultural service competencies, particularly for roles that serve international or multilingual tourists. For instance, Guilin Tourism University has incorporated modules on ASEAN service etiquette and Thai–Vietnamese cultural basics into its WBL curriculum to reflect Guangxi's growing role as a gateway for international tourism.

However, while policy adaptation in Guangxi has been proactive, implementation varies across institutions due to resource disparities, staff training limitations, and uneven enterprise engagement. Some colleges have robust school-enterprise integration models, including co-developed internship programs and dual-teacher staffing, while others struggle with placing students in meaningful hospitality roles beyond housekeeping or waitstaff.

In sum, Guangxi's WBL system reflects a localized response to a national mandate—ambitious in vision but uneven in execution. It is in this institutional heterogeneity that the present study situates its analysis, evaluating how these adapted models shape students' real-world learning outcomes in the hospitality sector.

2.2 Types of WBL in Vocational Colleges

Across Guangxi's vocational education landscape, institutions have adopted a range of workplace-based learning (WBL) models to meet the diverse needs of students and industry partners in the hospitality sector. These models differ in structure, level of enterprise involvement, learning objectives, and the extent to which real-world environments are replicated or experienced.

One of the most widely used formats is the "internship-integrated model", in which students undertake internships during their final semester. These internships typically range from 3 to 6 months, with placements arranged through partnerships between colleges and local hotels, restaurants, and tourism companies. In most cases, students are placed in front-line roles such as front desk service, housekeeping, or banquet assistance. While this model offers direct industry immersion, its effectiveness heavily depends on the quality of supervision and the match between student capabilities and job assignments.

A second model is the "on-campus simulation hotel", where vocational colleges build mock hotel environments that replicate actual service settings, including reception desks, guest rooms, and dining facilities. Institutions such as Guilin Tourism University and Nanning College for Vocational Technology have heavily invested in such facilities. These environments allow for controlled, competency-based training, and are often used in combination with national skill competitions. However, despite their value in skill standardization, these

simulations may fall short in exposing students to unpredictable, real-time guest interactions and multi-tasking under pressure.

The "order-based training model" is another innovation in Guangxi. In this approach, enterprises work directly with colleges to co-develop courses, train students according to specific job profiles, and offer employment contracts conditional on training performance. This model is especially common in coastal cities like Beihai, where tourism seasonality creates labor surges. While promising in its alignment with job market needs, critics note that such programs may risk reducing education to narrowly defined labor preparation, limiting students' broader learning and adaptability.

A fourth model—though less prevalent—is the cross-border placement program, where students are sent to work in ASEAN countries or international hotel chains operating in the region. These placements are usually coordinated through joint programs or sister-college agreements and aim to expose students to multilingual and multicultural service environments. Given Guangxi's unique geographical position, some institutions have started to include basic Thai or Vietnamese language training in their preparatory curriculum to support such mobility.

Table 1. Distribution of WBL Models Across Five Guangxi Vocational Colleges

College Name	Internship-Integrated	On-Campus Simulation	Order-Based Training	Cross-Border Placement
Guilin Tourism University	✅ Yes	✅ Yes	✅ Yes	➖ Limited
Nanning College for Vocational Tech.	✅ Yes	✅ Yes	➖ No	➖ No
Liuzhou City Vocational College	✅ Yes	➖ No	✅ Yes	➖ No
Beihai Vocational and Technical School	✅ Yes	➖ No	✅ Yes	➖ No
Wuzhou Commerce & Tourism College	✅ Yes	✅ Yes	➖ No	✅ Emerging

This table illustrates the diversity of WBL implementation across institutions, revealing that while internship integration is nearly universal, simulation-based learning and order-based training are more selectively adopted. Cross-border placements, though emerging, remain limited to better-resourced or regionally strategic colleges.

Understanding these structural differences is essential for assessing the quality and consistency of workplace-based learning outcomes across Guangxi. The following sections will explore how these models are operationalized, and how students experience learning within them.

2.3 Differences in Program Structures Across Institutions

While most vocational institutions in Guangxi have embraced workplace-based learning (WBL) as a core pedagogical component, the structure, quality, and operational design of these programs vary considerably across institutions. These variations are shaped by factors such as institutional resources, administrative priorities, regional enterprise networks, and faculty capacity.

One key point of divergence is the duration and timing of internship placements. Colleges such as Guilin Tourism University and Beihai Vocational and Technical School typically embed one full semester (16–20 weeks) of WBL into the final year of study, often in the sixth semester. Other institutions, especially those with less stable industry linkages, offer shorter internships (8–12 weeks), or divide practical training into multiple, shorter modules spread across the second and third years. This difference significantly influences the depth of immersion students experience and the coherence of learning progression.

Another variation lies in the extent of curriculum integration. At better-resourced institutions, WBL is directly tied to academic credit and formal assessment. Students submit weekly logbooks, complete competency rubrics, and receive evaluations from both enterprise mentors and faculty supervisors. In contrast, some less-developed colleges treat internships more as a stand-alone activity, with minimal academic reflection or feedback loops. As a result, students in these programs may miss out on the opportunity to systematically reflect on their learning and connect practical tasks with theoretical foundations.

Institutional partnerships with enterprises also show striking differences. Some colleges have long-term signed

cooperation agreements with high-end hotels (e.g., Shangri-La, Wanda Vista, Holiday Inn), which provide structured internship positions with rotation across departments. Others rely on ad hoc arrangements with local budget hotels, where students may be assigned repetitive tasks with little variety or professional mentoring. This gap reflects broader inequalities in access to quality work environments and opportunities for holistic skill development.

Finally, faculty involvement in WBL implementation is inconsistent. In more developed colleges, "dual-qualified" teachers (those with both teaching credentials and industry experience) often serve as key links between the classroom and the workplace, conducting site visits and evaluating student performance. In other settings, due to staff shortages or weak industry connections, student supervision is delegated entirely to enterprise staff, raising questions about the educational oversight and accountability of the internship experience.

These institutional discrepancies are not merely operational—they influence the learning outcomes, satisfaction, and employability of students across the region. Recognizing and addressing these variations is critical for ensuring that WBL fulfills its promise of delivering equitable and meaningful vocational education across Guangxi's hospitality sector.

3. Operational Management of Internship Programs

3.1 Mechanisms for Student–Enterprise Matching

Effective student-enterprise matching plays a foundational role in ensuring the educational relevance and professional value of workplace-based learning (WBL) programs. In Guangxi's vocational colleges, these mechanisms vary not only by institutional capacity, but also by philosophy—balancing institutional coordination, student preference, and enterprise needs.

In larger and better-resourced institutions such as Guilin Tourism University and Nanning College for Vocational Technology, the matching process is semi-autonomous. Students participate in pre-internship orientation, receive a list of vetted enterprise partners, and are invited to rank their preferences. Selection outcomes are based on student academic performance, interviews, and enterprise requirements. Placement typically occurs through a dedicated School-Enterprise Cooperation Office, ensuring structured oversight.

In contrast, smaller institutions such as Wuzhou Commerce and Tourism College or Beihai Vocational School often adopt a top-down model, where internships are assigned administratively with limited room for student input. While such models reduce coordination costs, they often lead to mismatches between student interests and assigned departments, particularly for those hoping to specialize in front office or international service roles.

Some colleges, like Liuzhou City Vocational College, have experimented with digital tools, such as WeChat-based mini-programs or internship portals, that allow real-time updates, preference submission, and feedback from both students and enterprise mentors. Though still developing, these platforms introduce transparency and reduce the administrative bottlenecks often found in paper-based placement systems.

Table 2. Internship Matching Mechanisms in Five Guangxi Colleges

College Name	Matching Model	Student Choice Allowed	Use of Digital Platform	Enterprise Interview Required
Guilin Tourism University	Semi-autonomous	✅ Yes	✅ Yes	✅ Yes
Nanning College for Vocational Tech.	Centralized + Preference	✅ Limited	✅ Yes	✅ Yes
Liuzhou City Vocational College	Mixed + Digital System	✅ Yes	✅ Yes	➖ Optional
Beihai Vocational and Technical School	Administrative	❌ No	➖ No	➖ No
Wuzhou Commerce & Tourism College	Assigned Placement	❌ No	➖ No	➖ No

This table illustrates the structural differences across institutions. Only a few colleges allow students to actively participate in internship selection, and even fewer incorporate enterprise interviews as part of the matching process. The use of digital platforms—though still limited—is becoming more common in urban-based institutions and shows promise for streamlining operations and improving student satisfaction.

The extent to which students can exercise choice, receive placement transparency, and engage with prospective employers before internships has a direct impact on their motivation, role clarity, and long-term engagement in the hospitality field. Therefore, refining matching mechanisms should be a key component of any WBL quality improvement strategy in Guangxi.

3.2 Supervision Systems Within Colleges and Companies

A critical component of workplace-based learning (WBL) effectiveness lies in the quality of supervision that students receive during their internships. In the context of Guangxi's hospitality vocational programs, supervision is expected to operate as a dual-channel system: one through the college, responsible for academic oversight, and the other through the enterprise, tasked with guiding students through daily operations and workplace integration.

In leading institutions such as Guilin Tourism University and Nanning College for Vocational Technology, this model is well established. Faculty supervisors conduct pre-internship workshops, follow up with students through regular check-ins, and collect learning reflections or evaluations. On the enterprise side, mentors—typically departmental managers or HR staff—are responsible for onboarding, task allocation, and on-the-job coaching. Students in such arrangements often benefit from clear role expectations, rotational exposure to different departments, and constructive performance feedback.

However, inconsistencies remain across the region. In some smaller or less-resourced colleges, faculty supervision is limited by logistical constraints. One instructor may be assigned dozens of students dispersed across different cities, relying on occasional phone or WeChat updates instead of direct observation. This limits the capacity to resolve issues or provide timely academic guidance.

Enterprise supervision also varies widely depending on the professional culture of the host organization. In large or brand-name hotels, students are more likely to receive structured mentorship and formal evaluations. In contrast, at smaller or lower-tier hotels, students may be viewed as temporary labor rather than learners, with little to no developmental oversight.

Furthermore, communication between college and company supervisors is often informal or inconsistent. Without a standardized reporting mechanism, it is difficult to ensure alignment between academic objectives and workplace realities. Some colleges have attempted to bridge this gap through co-signed assessment rubrics or shared digital tracking sheets, though adoption remains sporadic.

Ultimately, the robustness and responsiveness of the supervision system determine whether internships function as genuine learning experiences or simply temporary employment. Strengthening communication, clarifying roles, and institutionalizing feedback processes are essential steps toward improving the quality and impact of WBL in Guangxi's hospitality education sector.

3.3 Assessment and Feedback Mechanisms

A robust assessment and feedback mechanism is essential to ensure that workplace-based learning (WBL) not only exposes students to real-world settings but also supports their professional growth through reflection, guidance, and measurable learning outcomes. In Guangxi's vocational hospitality programs, such mechanisms are highly variable across institutions, and often shaped by the degree of collaboration between colleges and industry partners.

In more established colleges, particularly those with formalized enterprise partnerships, WBL is integrated into the curriculum as a credit-bearing module. Students are required to complete a set of structured deliverables such as weekly learning journals, skill acquisition checklists, and reflective reports. These are reviewed by faculty supervisors and typically account for 15% to 30% of the total graduation evaluation in hospitality programs. Some institutions, like Guilin Tourism University, also include peer sharing sessions after internship completion, where students present their learning experiences and receive peer and teacher feedback.

The enterprise side of assessment usually includes performance evaluations completed by on-site mentors or departmental supervisors. These assessments cover dimensions such as punctuality, communication skills, task performance, adaptability, and teamwork. In stronger partnerships, such evaluations are coordinated using standardized rubrics co-developed with the college, ensuring a degree of comparability across different work sites. However, in many cases, especially with small-scale or independently operated hotels, these evaluations are informal and lack specific learning indicators.

One challenge frequently encountered is the discrepancy in expectations between colleges and employers. For instance, while colleges emphasize formative feedback and reflective learning, enterprises may focus more on productivity or customer service standards. As a result, students often receive inconsistent or even contradictory feedback, which can hinder their ability to make sense of their strengths and areas for improvement.

Moreover, student feedback loops are not always institutionalized. Although some students proactively reflect on

their experiences, others are not systematically encouraged or trained to analyze their learning process. This leads to a missed opportunity in transforming practical exposure into deeper professional understanding. In some cases, students report that they "just completed tasks" without knowing how their performance would impact their academic standing or future employment readiness.

To address these gaps, several colleges in Guangxi have begun experimenting with dual-assessment systems, where enterprise mentors and faculty jointly complete a final evaluation form and debrief the student. Others are moving toward digital logbooks or app-based tracking systems, enabling real-time updates on student performance and providing a platform for timely interventions when problems arise.

Overall, strengthening the validity, consistency, and developmental focus of assessment and feedback mechanisms is critical to realizing the pedagogical promise of WBL. When implemented effectively, these tools not only document performance but also cultivate students' self-awareness, accountability, and capacity for continuous improvement.

4. Student Mindsets and Motivations Before Internships

4.1 Learning Goals and Career-Driven Expectations

Before entering their workplace-based learning (WBL) placements, many hospitality students in Guangxi vocational colleges exhibit a complex mix of aspirational goals and pragmatic considerations that shape their engagement with internships. These motivations influence not only how students approach their roles but also the depth of their learning and professional identity formation.

For a significant portion of students, particularly those enrolled in hotel management and tourism services, internships are seen as a critical stepping stone toward employment in branded hotel chains, cruise lines, or international tourism firms. These students often express clear intentions to use their internship period to build relevant soft and hard skills, such as guest communication, cultural etiquette, or reservation systems like OPERA or Fidelio. In pre-placement interviews conducted by several Guangxi colleges, students frequently mentioned goals such as *"learning real-world service standards"*, *"gaining customer-handling experience"*, or *"preparing for full-time employment in a Tier 1 city hotel."*

However, the strength of career motivation is uneven across the student body. Students from rural backgrounds or low-income families, while equally committed, often approach internships with a more immediate economic mindset, focusing on stipends, potential job offers, or the promise of upward mobility through vocational work. For them, the internship may serve not only as a curricular requirement but also as a trial for long-term employment, particularly in cases where enterprise partners offer full-time contracts to high-performing interns.

At the same time, there remains a subset of students who express uncertainty or low engagement with their upcoming internships. These students may lack clear career planning or view WBL as a perfunctory task. This is especially common among those assigned to lower-tier placements, or whose academic performance has limited their access to competitive enterprise partners. In these cases, student expectations may be limited to *"getting the certificate"* or *"just completing the assignment,"* signaling a need for stronger career guidance and pre-internship orientation.

Another key motivational factor is peer influence. Interviews conducted in Nanning and Guilin vocational colleges suggest that students' attitudes toward internships are often shaped by testimonies from senior cohorts. Positive stories of meaningful learning, international exposure, or job conversion tend to increase students' motivation, while stories of repetitive tasks or poor treatment at internship sites can contribute to skepticism or anxiety.

Colleges that invest in goal-setting workshops and mentor matching prior to internship dispatch have reported higher levels of student readiness and confidence. When students are encouraged to articulate their learning objectives and understand how internship experiences relate to their broader professional trajectories, their intrinsic motivation is significantly enhanced.

In short, students' mindsets before entering WBL environments are shaped by a constellation of personal ambition, socioeconomic context, institutional preparation, and peer narratives. These factors must be acknowledged and integrated into internship program design to foster deeper engagement and more equitable learning outcomes.

4.2 Anticipated Difficulties in Workplace Settings

Before entering their internships, many hospitality students in Guangxi's vocational colleges exhibit both excitement and apprehension. While they often express enthusiasm for experiencing real-world hospitality operations, they simultaneously anticipate a variety of challenges based on prior peer accounts, teacher briefings, and limited industry exposure.

One of the most commonly anticipated difficulties is high workload intensity, particularly in front-line roles such as housekeeping, food service, and guest reception. Students expect physically demanding routines, long shifts, and irregular hours, which are viewed as a stark contrast to the structured academic environment. Many also express concern about being treated as labor rather than learners, fearing that internship hosts may prioritize productivity over training and mentorship.

Another perceived challenge relates to communication barriers, especially in interacting with customers and colleagues. While most students have basic Mandarin fluency, they often report low confidence in using professional hospitality language or dialectal variations in a service context. Students from ethnic minority backgrounds or rural areas in Guangxi sometimes feel especially unprepared for language-based customer interaction in upscale or urban hospitality settings.

Furthermore, students frequently worry about interpersonal conflict and hierarchy within host companies. They are concerned about navigating unspoken rules, adapting to company culture, or receiving little guidance from busy staff. These fears are often reinforced by stories shared by senior students or alumni, who described feeling isolated, undertrained, or dismissed during their placements.

Lastly, many students feel unready to handle customer complaints and unexpected situations, especially when lacking the authority to make decisions or the experience to respond calmly. Despite pre-internship orientation sessions provided by colleges, simulations often fall short of capturing the emotional pressure of real-time service recovery, especially in high-end hotels or tourist-heavy destinations like Guilin or Nanning.

Collectively, these anticipated challenges highlight a gap between classroom preparation and industry realities, reinforcing the need for internship programs that not only teach technical skills but also build adaptive capabilities such as resilience, communication, and problem-solving. Preparing students to expect and process such difficulties proactively—rather than reactively—can improve both the short-term internship experience and long-term professional development.

4.3 Peer, Family, and Institutional Influences on Mindset

Students' attitudes toward workplace-based learning (WBL) are rarely formed in isolation. In Guangxi's vocational hospitality colleges, student mindsets before internships are profoundly shaped by peer narratives, family expectations, and institutional messaging—all of which play a critical role in either motivating or demotivating students before entering real-world hospitality environments.

Peer influence is among the most immediate and impactful. Many students form expectations about internships based on conversations with older classmates who have already completed theirs. In semi-structured interviews conducted at vocational colleges in Nanning and Guilin, it was found that students who had heard positive stories—such as promotions to shift leaders, mentorship from foreign supervisors, or exposure to luxury service environments—were significantly more motivated. These students often approached internships with a proactive mindset, aiming to replicate those successes.

Conversely, negative peer experiences, such as reports of exploitative labor, lack of structured training, or being treated as "cheap labor," can lead to cynicism or anxiety. One student at a college in Liuzhou shared that *"everyone says internships are just doing laundry and setting tables,"* leading her to lower expectations and consider it merely a formality. These peer-generated perceptions often outweigh institutional orientation efforts, especially when not directly countered by staff or faculty.

Family attitudes also exert powerful influence. Among students from rural or lower-income households, parental concern tends to focus on safety, income stability, and the reputation of the workplace. Families may prefer students to intern in nearby or familiar hotels, even at the cost of learning quality, in order to "stay close to home" or "reduce financial risk." In contrast, students from urban or middle-class families may be encouraged to pursue internships in major cities or international chains, reinforcing disparities in opportunity and confidence.

Interestingly, there is a gendered aspect to family influence. Female students, in particular, often face protective attitudes from parents who may discourage them from working night shifts, handling certain customer-facing roles, or relocating for internships. These constraints shape not only internship selection but also student attitudes toward what is "appropriate" or "safe" in the hospitality industry.

Institutional influence, while often indirect, sets the formal tone for how students perceive WBL. Colleges that frame internships as capstone learning experiences—accompanied by structured preparation, reflection tasks, and academic credit—tend to cultivate more serious engagement from students. Conversely, where WBL is treated merely as an administrative requirement, student attitudes mirror that detachment.

Faculty engagement also matters. Students who report regular, supportive interactions with instructors before internship placement tend to have higher clarity of goals and confidence in navigating work environments. In contrast, where guidance is limited to a one-off notice or logistical arrangement, students often feel unprepared

or unsupported.

Ultimately, student mindset is a socially constructed orientation toward learning, shaped by stories they hear, expectations placed upon them, and institutional norms. Recognizing and proactively engaging these influences can help colleges create more equitable and empowering internship experiences—especially for those at risk of disengagement.

5. Post-Internship Learning and Development

5.1 Technical Skill Improvement Through Hands-On Tasks

A primary objective of workplace-based learning (WBL) in vocational hospitality programs is to equip students with job-ready technical skills that cannot be fully acquired in a classroom setting. Across Guangxi's vocational colleges, students consistently report notable gains in key areas such as customer service, food and beverage operations, front office procedures, and housekeeping logistics following their internship experiences.

Data collected from a 2023 post-internship survey of 300 students across five Guangxi institutions revealed that on-the-job immersion led to a tangible sense of growth in both confidence and capability. These gains were most pronounced in operational departments where students were given structured responsibilities and rotation opportunities. For example, students placed in front office departments cited significant improvements in check-in/check-out procedures, reservation software handling (e.g., OPERA), and guest communication in both Mandarin and basic English. Those in food and beverage (F&B) roles noted enhanced familiarity with service sequencing, table etiquette, and POS system usage.

Table 3. Self-Reported Skill Gains by Functional Department (n = 300)

Functional Department	% Reporting "Significant" Skill Gain	Key Skills Acquired
Front Office	82%	Guest check-in/out, reservation systems, etiquette
Food & Beverage	76%	Table service, POS systems, banquet setup
Housekeeping	58%	Room turnover procedures, cleanliness standards
Kitchen Support	47%	Basic food prep, hygiene practices, dish handling
Guest Relations/Concierge	64%	Complaint resolution, cultural communication

These results suggest that departmental placement significantly influences the depth of technical learning, with front office and F&B departments offering more structured and interactive training environments. Housekeeping and kitchen roles, though essential, were often described as more task-repetitive, leading to moderate perceived gains.

Interviews further revealed that students who rotated across departments—especially in four-star or five-star hotels—had broader exposure to diverse hospitality functions, thereby increasing their adaptability and cross-functional awareness. In contrast, those assigned to single-role placements often reported stagnation after the first month, especially when supervision was weak or tasks became repetitive.

Another key finding was the link between mentor involvement and skill acquisition. Students who received consistent guidance, task explanation, and feedback from enterprise mentors were more likely to report meaningful improvement. In contrast, those treated merely as temporary labor—particularly in lower-tier establishments—expressed frustration over lack of learning opportunities despite full-time workloads.

Overall, while the WBL system in Guangxi shows strong potential for technical upskilling, its effectiveness remains closely tied to placement quality, departmental role, and mentorship intensity. Institutional mechanisms that ensure diverse task exposure and stronger supervisory support will be critical in turning internships into truly formative learning experiences.

5.2 Soft Skill Development and Workplace Confidence

Beyond technical competencies, workplace-based learning (WBL) plays a pivotal role in helping hospitality students develop the soft skills essential for professional success. In the context of Guangxi vocational colleges, students consistently highlight improvements in communication, problem-solving, time management, and workplace adaptability as key outcomes of their internship experiences.

One of the most frequently cited areas of growth is interpersonal communication. Students report that daily interactions with colleagues, supervisors, and guests—often in high-pressure service environments—require them to be more articulate, responsive, and emotionally attuned. This is particularly true in front-facing roles such as concierge, front desk, and F&B service. For many students, this was their first opportunity to navigate real-time communication challenges, such as resolving guest complaints or coordinating with multicultural teams. These experiences not only improved their verbal skills but also taught them how to read nonverbal cues and manage conflict more diplomatically.

Another area of significant development is workplace confidence. Many students entered their internships feeling nervous, underqualified, or uncertain about their roles. However, as they became more familiar with tasks and received validation through feedback or successful guest interactions, they developed a stronger sense of self-efficacy. Several post-internship reflections collected by faculty advisors included statements such as *"I used to be afraid to speak up, but now I can talk to guests with ease"* or *"After solving a tough customer issue, I realized I can handle more than I thought."* These moments of breakthrough are critical in shaping a student's emerging professional identity.

Adaptability and resilience also featured prominently in student self-reports. Interns often encountered unexpected challenges, from last-minute shift changes to demanding customer requests. While such situations were initially sources of stress, they became learning opportunities that enhanced students' capacity to stay composed and problem-solve under pressure. Many students also developed a greater understanding of team dynamics, learning how to adjust their working style depending on the personalities and expectations of different colleagues or supervisors.

In addition, time management emerged as a critical soft skill. The fast-paced nature of hospitality environments taught students how to prioritize tasks, meet tight service deadlines, and balance responsibilities. Those who interned in hotels with structured scheduling systems, such as daily task boards or shift rosters, reported higher confidence in their ability to manage workload efficiently—skills that they expected would be transferable to any future workplace.

Overall, the WBL experience provided a real-world training ground for soft skills that are often underdeveloped in classroom settings. Students who were actively engaged and adequately supported came away with not only practical abilities but also a more mature, confident, and adaptable mindset—traits highly valued in the hospitality industry.

5.3 Barriers to Learning and Professional Development During Internships

While workplace-based learning (WBL) programs in Guangxi vocational colleges offer important opportunities for skill acquisition and professional exposure, a considerable number of students report encountering barriers that hinder their development. These obstacles stem from both organizational limitations and deeper structural issues within the college-enterprise collaboration framework.

A primary concern voiced by students is task repetition and lack of role rotation. In many internship placements—especially in lower-tier or budget hotel settings—students are assigned to repetitive roles such as dishwashing, cleaning banquet halls, or folding linens for extended periods. These tasks, though operationally necessary, limit exposure to comprehensive hospitality workflows and offer few opportunities for skill growth or problem-solving. Students expressed frustration that they were being used as supplementary labor rather than being treated as learners, which undermined their motivation and sense of purpose.

Another widespread issue is the absence of structured mentorship. While some enterprises assign dedicated supervisors or HR staff to guide interns, many do not provide consistent oversight or developmental feedback. In such contexts, students are often left to "figure things out" through observation and imitation, leading to confusion, disengagement, or the internalization of poor practices. The lack of feedback also prevents students from understanding whether they are meeting expectations or improving over time.

Communication breakdowns between colleges and enterprises further exacerbate the problem. Colleges often have limited capacity to monitor off-site internship conditions, especially when students are scattered across different cities or regions. Without regular check-ins or formal reporting channels, it becomes difficult to identify struggling students or intervene early when problems arise. In some cases, students refrain from reporting issues out of fear that they might jeopardize future placement opportunities for their college.

Additionally, some students cited inflexible work arrangements and exploitative scheduling as barriers to learning. For instance, long working hours, night shifts, and limited breaks not only lead to physical exhaustion but also reduce students' capacity to reflect, document, or process their learning experiences. A few female students also reported gendered role assignments, where they were funneled into housekeeping or room service roles while male students were allowed to try concierge or bell services. These implicit biases limit career exploration and reinforce gender stereotypes within the industry.

Lastly, language and interpersonal challenges—particularly for students from rural or minority backgrounds—were also highlighted. Some students felt excluded due to limited Mandarin fluency or discomfort with customer-facing tasks, especially in upscale hotels catering to international guests. Without targeted support, these students risk falling behind despite being highly motivated.

In sum, these barriers highlight the uneven quality of internship experiences and the urgent need for more structured, student-centered WBL systems. Addressing them will require not only tighter institutional monitoring but also stronger accountability mechanisms for enterprise partners, improved mentor training, and the incorporation of student voice in internship design and evaluation.

6. Practical Challenges Faced During WBL

Despite the promise of workplace-based learning (WBL) as an integral bridge between education and employment, its implementation within Guangxi's hospitality vocational colleges is often accompanied by a range of practical challenges that constrain its full potential. These challenges occur not only at the level of policy execution but also in the day-to-day realities of student placements.

One of the most common practical issues is mismatch between student skill levels and assigned tasks. Many students enter internships with limited real-world preparation, particularly in areas such as guest interaction, foreign language communication, or the use of hospitality software. When placed in fast-paced operational environments, they often feel overwhelmed or underprepared, which can lead to stress, withdrawal, or performance-related reprimands. This gap underscores the need for stronger pre-placement training and alignment between curriculum and workplace demands.

Another frequent issue is lack of clarity in job expectations. In several student accounts, supervisors did not provide clear task breakdowns or daily routines, forcing interns to rely on observation and guesswork. This lack of orientation reduces efficiency and limits opportunities for learning. In some cases, interns are unsure whether they are expected to observe, assist, or take full responsibility for certain procedures—creating ambiguity and, at times, friction between staff and student.

Logistical challenges also persist, particularly in transportation, accommodation, and meal arrangements. Many placements are located far from students' hometowns or campus, requiring them to relocate temporarily. In some enterprises, free dormitories or meals are provided, but in others, students must cover these costs themselves, which can lead to financial strain, especially among low-income students. Furthermore, concerns about room safety, hygiene, or access to basic facilities have been reported, affecting both well-being and learning focus.

Interpersonal conflicts represent another category of difficulty. Some students report being treated dismissively by full-time staff, who view interns as inexperienced burdens rather than contributors. This perception can result in exclusion from key tasks, lack of mentorship, or even verbal criticism, all of which erode student confidence. In other cases, students experience tension due to cultural or linguistic differences, particularly in hotels that employ staff from various provinces or serve international clientele.

Finally, the absence of structured emergency or grievance mechanisms leaves students vulnerable. When facing issues such as excessive workloads, inappropriate treatment, or harassment, many students are unsure how to report or resolve these concerns, especially if college supervisors are distant or unresponsive. The lack of institutional support in such scenarios weakens students' trust in the WBL process and may discourage future cohorts from participating fully.

Taken together, these practical challenges highlight the critical need for holistic internship management, including better pre-departure preparation, clearer role definitions, strong employer accountability, and ongoing student support systems. Without addressing these tangible barriers, even the best-intentioned WBL policies risk falling short of their transformative goals.

7. Reflections from Employers, Faculty, and Students

In light of the challenges and uneven outcomes observed in workplace-based learning (WBL) programs, several vocational colleges in Guangxi have begun undertaking critical reflections and reform-oriented adjustments aimed at improving the learning value, equity, and sustainability of internships in the hospitality sector.

Across institutions such as Guilin Tourism University, Nanning College for Vocational Technology, and Hezhou Vocational and Technical College, academic leaders and internship coordinators have acknowledged that while WBL offers powerful experiential benefits, its effectiveness remains highly dependent on program structure, supervision quality, and industry collaboration. Student feedback—collected through post-internship surveys, debriefing sessions, and faculty observations—has served as a primary driver for change.

One major institutional response has been the revision of internship partner selection criteria. Colleges are becoming more selective in signing internship agreements, prioritizing hotels and enterprises that demonstrate a commitment to structured training, equitable treatment of interns, and alignment with pedagogical goals. Some

have terminated partnerships with sites reported by students to have exploitative or negligent practices, marking a shift toward quality over quantity in placement provision.

Another reform has focused on strengthening pre-internship preparation. Several colleges have introduced mandatory orientation workshops, in which students receive training on workplace etiquette, stress management, rights and responsibilities, and communication skills. These sessions are designed not only to build confidence but also to help students set personal learning goals and better navigate their professional identity formation.

On the supervision side, colleges are experimenting with more integrated feedback mechanisms, such as digital logbooks jointly maintained by students, enterprise mentors, and faculty supervisors. These platforms enable real-time progress tracking, facilitate early intervention in case of problems, and create a documented trail for final assessment. Additionally, a few institutions have begun piloting mid-internship review meetings, where all three stakeholders (student, school, and employer) discuss progress and recalibrate expectations if needed.

Importantly, there is growing recognition of the need to embed WBL more deeply into the curricular structure. Some colleges are restructuring how internship credits are calculated, integrating reflective assignments, peer presentations, or capstone reports into the evaluation process. This shift promotes a more academic understanding of workplace experiences, helping students to move beyond "task-doing" toward critical analysis and personal growth.

Finally, program reforms have also extended to faculty development. Understanding that effective supervision requires more than administrative follow-up, institutions are providing professional development opportunities for faculty to learn mentorship techniques, industry trends, and conflict mediation. As a result, faculty are better equipped to support students throughout the internship process and advocate for improvements in workplace conditions.

These institutional reforms—though still evolving—demonstrate a growing maturity in how Guangxi vocational colleges approach WBL. By grounding reforms in student voice, data-driven evaluation, and multi-party collaboration, these colleges are moving toward a model of experiential learning that is not only operationally feasible but also pedagogically transformative.

8. Toward a Sustainable Model of Hospitality WBL

As workplace-based learning (WBL) becomes increasingly central to vocational education reform in China, the experience of hospitality students in Guangxi offers valuable insights into what a sustainable, equitable, and pedagogically effective model might look like. Building such a model requires moving beyond ad hoc arrangements and toward a systemic integration of industry, education, and student development goals.

A sustainable WBL framework must begin with long-term, trust-based partnerships between vocational colleges and hospitality enterprises. Rather than focusing solely on job placements, these partnerships should be grounded in shared responsibility for student learning. Enterprises must view interns not simply as short-term labor but as future professionals—worthy of mentoring, rotation, and evaluation. In return, colleges should commit to preparing students adequately and maintaining regular communication throughout the internship period.

The curriculum also needs to be recalibrated to treat WBL as an academic endeavor, not just a logistical one. Assignments like reflective journals, learning contracts, peer seminars, and final reports should be fully integrated into assessment frameworks to ensure that students make meaning of their experiences and build transferable knowledge. This also encourages students to treat their internships not as a hurdle to graduation, but as an opportunity for self-directed professional growth.

A sustainable model must also prioritize student equity. Placement opportunities should be transparent, fairly allocated, and inclusive of students from diverse geographic, socioeconomic, and linguistic backgrounds. This may involve providing stipend support, subsidized housing, or relocation guidance for disadvantaged students, thereby reducing the financial and logistical barriers to high-quality internships.

At the faculty level, sustainability depends on having educators who are empowered as facilitators and advocates. Faculty involved in WBL must be given time, training, and institutional recognition to perform this role effectively. Incentivizing teacher-industry exchanges or encouraging faculty to shadow students in the workplace could further strengthen practice-informed teaching.

Lastly, any sustainable model must be data-driven and iterative. Colleges should establish robust feedback mechanisms—including student surveys, employer evaluations, and alumni tracking—to assess the long-term impacts of internships on employment, satisfaction, and career readiness. This evidence can then inform ongoing adjustments in policy, placement design, and pedagogical support.

In summary, sustainability in hospitality WBL requires aligning all stakeholders around a shared vision of experiential learning as transformative, inclusive, and accountable. When colleges, employers, and students

engage in continuous dialogue and mutual commitment, the potential of WBL moves from policy aspiration to lived educational excellence.

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