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Enhancing Teacher Competence through In-Service Training: Evidence from Tourism and Hospitality Education in Botswana

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Abstract. Despite the growing importance of in-service professional development training programs, limited research has been undertaken to unearth the specific competences that professional teachers develop within tourism and hospitality training programs. Anchored by the Experiential Learning Theory, this study addresses this gap in the literature by exploring the competences gained by teachers participating in a related in-service program at a local university in Botswana, and how these have influenced their teaching practice. The study employed a qualitative research methodology, through a focus group discussion and semi structured interviews on 13 in-service teachers graduating from program. As reported by all the participants, the in-service program largely contributed to five interrelated competence domains to varying levels: i.e. subject-matter competence, pedagogical competence, industry knowledge, professional competence, and entrepreneurship competence. Conversely, despite its commonality in similar programs, curriculum competence development was not reported, largely due to the tourism industry-aligned (and not teacher-focused) nature of the program. Overall, stronger collaborations between educational institutions and the tourism industry and wider integration of 21st Century skills in tourism and hospitality in-service education, were recommended.

Keywords: Teacher competences; in-service training; 21st Century skills; tourism education; Botswana

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1. Introduction

Continuous advancements and reforms in the education system affect teachers' knowledge and skills, and their ability to sustain professional life (Ajani, 2022; Kallon, 2025; Kanyesigye et al., 2022). Without sustained professional training, teachers may struggle to adopt innovative teaching methods, resulting in reduced effectiveness in delivering quality instruction, and failure to align curricula with the evolving demands of the global industrial workforce (Baabdullah et al., 2022; Opfer & Pedder, 2011). In-service training has, therefore, been developed to continually meet the ever-growing professional demands of serving teachers, by offering opportunities for their continual learning and skills development to improve students' achievement (Ajani, 2022; Kalinowski et al., 2020; Kallon, 2025; Kanyesigye et al., 2022; Kurteshi & Rustemi, 2025; Opfer & Pedder, 2011). In-service training is, therefore, designed to enable teachers to update their knowledge, improve pedagogical practices, and adapt to evolving educational and industry contexts (Baabdullah et al., 2022; Nguyen & Sit, 2025; Wu & Eng, 2025).

Apart from the above-mentioned teacher and student benefits, education also helps countries reach their development goals (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2024; World Bank, 2024). Many governments are redefining and reimagining their education and training as education is viewed as essential to advancing innovation and national economic development (Organization for Economic Co-operation and Development [OECD], 2024; World Bank, 2024). In line with this move, Botswana enrolled two cohorts of qualified secondary school teachers, drawn from schools within the country, to spearhead teacher development in tourism and hospitality education.

According to the Government of Botswana (2015), as emphasized in the Education and Training Sector Strategic Plan (ETSSP) (2015-2020), upon their completion, these teachers would be redeployed to teach a newly introduced (at the time) tourism and hospitality subject in the secondary schools. The first cohort of teachers enrolled for this initiative, graduated from a tourism and hospitality degree program offered by a local university in Botswana in 2025, and the second cohort, placed with the same university, is due to complete their training in 2027. The initiative aimed to intensify qualified Tourism teachers' professional development, targeted tourism as a priority sector to diversify Botswana's economy beyond diamond dependence (Republic of Botswana, 2021). In-service training was, therefore, intended to build teachers' competences and ensure tourism education aligns with industry needs and national development goals.

Furthermore, though extant research has extensively examined in-service teacher professional development within general education contexts, including program design, digital technology integration, inclusive practice, professional growth, and effective teaching delivery (Kalinowski et al., 2020; Nguyen & Sit, 2024; Wu & Eng, 2025), There is dearth of literature that addresses tourism and hospitality in-service teacher programs and limited focus on how these programs shape educators' competencies (Fu et al., 2026). This gap may hinder in-service

institutions from designing and delivering training that is relevant to Tourism and Hospitality Management (THM) teachers.

Furthermore, although interviews or focus group discussions are commonly used in in-service students' qualitative research studies (Jasmine et al., 2026), there is limited qualitative literature examining their experiences and interpretations within the tourism sector (Kallon, 2025). This study fills these gaps by addressing the following objectives:

1. Describe the competences teachers reported developing through the THM in-service training program.
2. Explain how those competences influence teachers' THM teaching practice.
3. Discuss how the identified competences can inform THM curriculum and education policy design in Botswana and comparable contexts.

The study adds valuable empirical lessons and implications for in-service training programs.

2. Literature Review

2.1 The Concept of Competence

The concept of competence has been extensively discussed by scholars, but it remains largely complex and multifaceted (Oyerinde et al., 2020). According to Alan and Güven (2022), competence is defined as expert knowledge in a certain domain, including skills and dispositions. Hurombo et al. (2024) observed that competences may include problem-solving abilities, analytical thinking abilities, or leadership skills, among others. Competence is, however, not just a particular knowledge, skill, or attitude; but is demonstrated, behaviorally expressed, or performed. In summary, competence as conceptualized in this study is therefore a multidimensional construct of demonstratable attributes that include knowledge, skills, attitudes, dispositions, and values specific to a professional context (OECD 2021; UNESCO 2021). This conceptualization provides a foundation for understanding the specific competences developed through the in-service training program under study.

2.2 Teacher Competence

Various frameworks have been developed to explain teacher competences. Earlier work by Şişman (2009) categorized teaching competences as subject matter knowledge, professional knowledge, as well as general knowledge. Biggs and Tang (2011) similarly highlighted a three-dimensional framework, which emphasized pedagogical competences, subject expertise, and meaningful learning experiences. These competences enabled teachers to design, deliver, and evaluate instruction in ways that promoted student engagement and understanding. In their framework, Shakoor et al. (2013) reiterated the importance of pedagogical competences and field competences, further emphasizing the need for cultural competences, critical for cross-cultural contexts. Mohamed et al. (2016) also identified curriculum competences, lifelong learning competences, social-cultural competences, and emotional competences categories. In vocational and hospitality education, teachers are increasingly expected to integrate

technological competence, workplace relevance, reflective practice, and industry-aligned pedagogies into teaching and learning (OECD, 2021; Sunny et al., 2023), as further illustrated in Section 2.3.

Based on existing teacher competence frameworks, the study synthesized six dimensions: (1) Curriculum competence considers teachers as active curriculum designers who align content with meaningful learning outcomes (Oyerinde et al., 2020; Priestley et al., 2021), (2) Pedagogical competence which involves delivering and assessing learning effectively (Darling-Hammond et al., 2017), (3) Subject/content knowledge ensures conceptual accuracy and instructional relevance (Şişman, 2009), (4) Practical/experiential/field competence which translates knowledge into practice (Kolb, 1984; Shakoor et al., 2013), (5) Context-specific competences, e.g. industry knowledge to meet tourism education professional, cultural, and labour-market needs (Mohamed et al., 2016), and (6) Professional competences, i.e. emotional intelligence, continuous learning, and cross-cultural adaptability (Mohamed et al., 2016).

Despite the above synthesis of teacher competences, it should be acknowledged that contemporary educational discourse also increasingly emphasizes the integration of 21st Century skills within these competence domains (Kalinowski et al., 2020; OECD, 2024; UNESCO, 2024). 21st Century skills are core skills and competences needed by students to succeed in work, life, and citizenship (Partnership for 21st Century Learning, 2019). Thornhill-Miller et al. (2023) summarized these as the 4Cs comprising critical thinking, collaboration, communication, and creativity. These skills also blend in digital literacy skills, life and career skills, and knowledge-based economies (Kalinowski et al., 2020; OECD, 2024; Partnership for 21st Century Learning, 2019; UNESCO, 2024). As a result, teacher competence can no longer be conceptualized solely in terms of traditional pedagogical and content knowledge, but the ability to cultivate these skills within teaching practice.

This study further conceptualized teacher competence within THM education as a construct that inherently incorporates 21st Century skills. Specifically, within the already identified competence dimensions, it is argued that 21st Century skills are embedded as integral components. For example, pedagogical competence extends beyond instructional delivery to include the facilitation of critical thinking and communication (Biggs & Tang, 2011; Darling-Hammond et al., 2017). Thus, to further strengthen the conceptual contribution of the study, Table 1 provides a curriculum competency map, also relevant to THM education, which links the identified traditional teacher competencies with the broader 21st Century skills.

Table 1: Competency map linking traditional teacher competencies to 21st Century skills in in-service tourism teacher education

	Emergent Competences	21 st Century Dimension	THM Education relevance	Supporting literature
1.	Curriculum	Creativity, critical thinking, innovation	Develops a relevant, industry responsive and student-centred curriculum.	Ghorbani and Jafari (2024)
2.	Pedagogical competence	Technological pedagogical knowledge (TPACK), collaboration, digital literacy	Facilitates active and student-centred learning.	Njoroge and Kisiangani (2025); Baabdullah et al. (2022); Darling-Hammond et al. (2017)
3.	Subject Matter Competence	Information literacy and lifelong learning	Mastery of tourism and hospitality subject matter and delivery accurate and meaningful content.	Partnership for 21 st Century Learning (2019); Darling-Hammond et al. (2017); Biggs and Tang (2011)
4.	Practical Competence	Critical thinking, problem-solving, and adaptability	Facilitates integration of practical hospitality information into theory.	Vumbunu, Chikuta and Mogami (2023); UNESCO (2024); Kalinowski et al. (2020)
5.	Industry Knowledge competence	Career and vocational competence, adaptability	Aligns teaching with current tourism and hospitality industry trends and expectations.	Thornhill-Miller et al. (2023); Airey and Tribe (2005)
6.	Professional competence	Communication, time management, and self-management	Demonstrates ethical conduct, accountability, and professional behaviour.	Mohamed et al. (2016); Wu and Eng (2025)

(Source: Compiled by authors from extant literature)

2.3 TVET Perspectives on Tourism Teacher Professional Development

Tourism and hospitality education shares several characteristics with the broader Technical and Vocational Training (TVET) sector, especially in the areas of applied competence, industry relevance, and workplace preparedness (Airey & Tribe, 2005; Vumbunu et al., 2023). TVET entails training that provides hands-on practical experience relating to a particular trade (Mutambanengwe, 2014), which consists of work-based learning, ongoing training, and professional development that may result in certification (UNESCO, 2021). Apart from providing general education, TVET involves learning about technologies; acquiring technical skills, knowledge, understanding, and attitudes relating to roles in many sectors of economic and social life; and encouraging self-employment (Sunny et al., 2023; UNESCO, 2021).

The integration of TVET perspectives in in-service training is particularly important in THM education, where experiential learning, work-integrated learning, service interaction, and industry responsiveness, form central components of professional preparation (Airey & Tribe 2005; Vumbunu et al., 2023). THM educators should have ongoing opportunities for industry exposure, entrepreneurial competences, practical competence, reflective practice, and experiential pedagogies (Darling-Hammond et al., 2017; Wu & Eng, 2025).

2.4 Theoretical Framework

This study is guided by the Experiential Learning Theory (ELT) introduced by Kolb (1984), which asserts that learning is a cyclical process which occurs when knowledge is created through learning by experience. Kolb's (1984) theory proposes four key stages - concrete experience, reflective observation, abstract conceptualization, and active experimentation - and argues that genuine learning goes beyond active engagement to include reflection on experiences, development of conceptual understanding, and application of new knowledge.

In the context of this study, in-service teacher training can be understood as an experiential learning process where teachers are exposed to practical experiences such as observing industry practices, engaging in instructional activities, and interacting with peers and facilitators. When they critically reflect on these experiences, they develop new pedagogical and professional insights, coinciding with the expectations of the ELT. These insights are then conceptualized and transformed into teaching strategies applicable in classroom practice (Kolb, 1984). Activities undertaken in this process promote the development of teaching competences. Table 2 below illustrates how Kolb's (1984) experiential learning stages link to the in-service program under study.

Table 2. Linking Kolb (1984)'s learning stages to the THM In- Service Program Activities

Kolb (1984)'s learning stages	THM In-Service Program Activities
Concrete Experience	Workshops, field visits, practical demonstrations, digital learning activities, internships and externships, etc.
Reflective Observation	Reflection sessions, peer and group discussions, etc.
Abstract Conceptualization	Interpreting experiences, examining best practices, linking experiences, and reflections to educational concepts, etc.
Active Experimentation	Application of new teaching approaches, etc.

(Source: Compiled by authors)

3. Methodology

3.1 Research Approach and Research Instruments

The study, which is part of a wider study on tourism in-service training in Botswana, followed a qualitative research approach to capture the participants' rich, nuanced insights within the in-service program. The three-member research team conducted a focus group discussion (FGD) and semi structured interviews in 2025. These are qualitative tools common with research targeting in-service

education having been employed by other scholars to explore the effectiveness of in-service teacher programs in Botswana (Ramatlapan, 2009) and elsewhere (e.g. Aslan et al., 2022; Darling-Hammond et al., 2020). These tools were also preferred for in-depth understanding and flexibility in probing responses, an effect which cannot be achieved by positivist data collection tools such as questionnaires. While the interview was ideal for sharing personal or complex experiences, FGDs assisted to uncover social issues through debate and collaboration (Oranga & Matere, 2023). In alignment with Aslan et al. (2022) and Darling-Hammond et al. (2020), the FGD guide was adapted into an interview guide comprising the same questions. The FGD took one and half hours, while each interview took an average of 30 minutes.

3.2 Participants

The research subjects consisted of the graduating final (fourth) year in-service teachers registered for a four-year bachelor's degree program in THM at a local university in Botswana. The participants held teaching diplomas and had acquired pre-service training prior to advancing into the in-service degree program. The population of class comprised 13 teachers recruited from several schools countrywide. This population was selected because it included the first cohort of in-service teachers recruited for Botswana's new tourism and hospitality curriculum for senior secondary schools (SSS). Since the SSS qualification is an entry level for tertiary education, it was well suited for assessing competency development at this transition point.

The FGD comprised 7 teachers from the class who had shown interest in participating. The remaining 6 teachers were targeted for interviews, but only 4 teachers agreed to be interviewed. Thus, a total of 11 respondents participated in the study. In reporting the findings, the FGD participants and interviewees were not identified by name but as participants, from F1-F7 for FGD participants and as I1-I4 for interview participants. Furthermore, transcripts and audio files of the recordings were stored securely in password protected folders in OneDrive, and access was limited to the research team. The interview sample size was low because the research population was small.

Moreover, interviews were intended to provide depth rather than statistical representativeness, and data saturation was not used due to the limited number of respondents. Despite this, the interview data showed recurring patterns consistent with FGD themes. The study acknowledges possible non-response bias from two invitees who did not participate; however, because participants shared the same cohort learning context, this is unlikely to substantially affect the findings.

3.3 Sampling

The study applied purposive sampling to select participants based on their relevance to the research objectives (Teddlie & Yu, 2007). This ensured the sample included individuals registered for the training program who were well-positioned to provide rich, meaningful data on their experiences with THM in-service education at the university.

3.4 Data Collection Procedures and Analysis

The FGD and semi-structured interviews were held online via Microsoft Teams since data collection took place after in-service teachers had completed their final exams and left campus. Participants were invited by email and phone and were fully informed in advance about the purpose of study, question types, and use made of their responses. They were required to confirm granting informed consent before taking part. All three researchers/authors participated in the FGD with the third author leading the discussion and ensuring that all ethical guidelines were observed. Recordings of the FGD and interviews were transcribed verbatim, organized, and thematically analyzed using Creswell (2009)'s six-step data analysis method (Creswell, 2009). This procedure involves:

1. Organizing data into thematic sections,
2. Reading data for overall meaning,
3. Coding data into themes,
4. Generating broader theme descriptions,
5. Presenting data narratively, and
6. Interpreting data to derive implications and recommendations.

3.5 Researcher Positionality, Reflexivity and Trustworthiness

The researchers acknowledge potential researcher-participant biases from their involvement in THM in-service training. Reflexivity was, therefore, essential. One researcher (from a different Faculty and unknown to participants) facilitated the FGD, while the other researchers attended as non-participant observers. Their roles were limited to listening to the discussions for methodological transparency and rapport-building.

The lead author conducted primary inductive coding, which co-authors reviewed and refined collaboratively and reached consensus on the final themes. Though formal inter-rater reliability and member checking were not used, trustworthiness was achieved through collaborative coding review, continuous comparison of responses, grounding of themes in raw data, and triangulation of interview and FGD data.

4. Results and Discussion

4.1 Demographic Context of the Participants

The demographic background of the participants (Table 3) provided important context for interpreting their perspectives. The sample was entirely female, resonating with general gender skewness to females in the teaching profession (UNESCO, 2023); was mostly above the age of 40 as expected with in-service programs in Botswana (Mhozya et al., 2012); mostly single (n=7) and with high work experience of more than 16 years (n=6).

Table 3: Respondents' demographic characteristics

Characteristic	Frequency N = 11	Characteristic	Frequency N = 11
<i>Gender</i>		<i>Marital status</i>	
Male	0	Married	4
Female	11	Single	7
<i>Age</i>		<i>Teaching Experience</i>	
31-40 years	3	6-10 years	1
41-50 years	8	10-15 years	4
		16 years and above	6

Scholars like Baabdullah et al. (2022) and Kong et al. (2020) opined that generational and professional background factors may influence individuals' abilities to engage with learning environments, especially those characterized by emerging educational technologies. As shall be noted in Section 4.2, the study aligns with this observation, as participants expressed initial challenges with adjusting to the digital technologies used in the training program, particularly where prior exposure to digital pedagogies had been limited.

Additionally, the professional maturity and rich work experience background also suggested high levels of adaptability, reflective practice, and emotional intelligence in the teachers, among other related 21st Century competencies (Darling-Hammond et al., 2017; van Veen et al., 2012). The study corroborates the above observations as most of these cited competencies were strengthened, as reported during the teacher training program. The predominance of participants reporting a 'single' marital status in participants suggests some had fewer family-related responsibilities, which may have afforded greater flexibility and engagement with competence development during the training.

4.2 Teacher Competences Developed through the In-service Training Program

Resonating with similar global studies on in-service teachers' competencies (e.g. Kallon, 2025; Rubio & Saenz, 2023; Trixa & Kaspar, 2024), the current study positions teacher competence as an important topic in education. The study findings, as reported by participants, indicate that the in-service training program contributed to the development of multiple teacher competences, organized under five interrelated themes: subject matter competence, pedagogical competence, industry knowledge, entrepreneurship, and professional competence, alongside 21st Century skills emerging within these themes.

4.2.1 Subject Matter Competence

The participants highlighted marked improvements in their understanding of Tourism and Hospitality concepts, including greater clarity in explaining theoretical principles and content. An illustrative quote is one below from F5:

"The modules opened my mind. the quantity is so rich.... you become all round with all the information. Largely, I can say I am well equipped, both theoretically with the knowledge I gained and the practical skills especially in customer service and food and beverage management."

These results align with earlier observations by Biggs and Tang (2011) and recently by Alan and Güven (2022) who emphasized the foundational role of content knowledge for effective teaching. The finding suggests how expanded breadth, depth, and understanding of subject areas also helps teachers to be more effective in their profession. Additionally, when teachers are grounded and deeply knowledgeable in the subject matter, it helps them to engage in higher order thinking, a critical 21st Century skill and new skill they developed from the training initiative.

4.2.2 Pedagogical Competence

Participants also reported marked improvements in their pedagogical insights following the training. Two subthemes emerged under this competence; ability to research, and ability to deliver teaching using digital technologies.

4.2.2.1 Research Skills

The identification of research competence by the teachers, as a key subtheme, underscored the increasing shift of teachers from being mere knowledge transmitters to being knowledge creators through enquiry-based pedagogical methods. Research helped them to stay current with the ever-evolving classroom teaching and interaction strategies. One respondent, F3, had this to say:

“One other thing that we really learned, which really helped us, is learning more about research work. How to do research, how to dig for information and appreciate it. I think that is one aspect that we would also carry to the classrooms and help us to enrich our learners when teaching them”.

This response suggests a key synergy between the ability to research, knowledge synthesis, and pedagogical delivery, emphasizing the need for teachers to continuously anchor their classroom delivery in sound research. The finding aligns with literature that emphasizes the role of research skills in effective teaching, particularly in fostering reflective practice and teachers’ continuous professional development (Darling-Hammond et al., 2020). In THM education, this competence is key, given the dynamic and ever evolving industry trends which call for continuous research and adaptations. Teachers who possess research skills are thus believed to be agile and swifter in integrating current and relevant information into their teaching, thereby enhancing curriculum responsiveness. Furthermore, it is also argued that research competence largely reflects key 21st Century skills, such as, problem-solving, critical thinking, and information literacy.

4.2.2.2 Digital Pedagogical Skills

All participants also reported developing the ability to use digital platforms such as Microsoft Teams, online communication tools and computers for learning, reflecting the infusion of digital technologies into teaching practice as illustrated:

“When we arrived here, we had a problem just to join the Microsoft Teams and attend the lesson, we usually asked ourselves where are they saying the lesson is? But now we can start our own Microsoft teams as a group. I am confident that even if I go back to school, I can tell my students that we can have a virtual meeting” (F1).

The response underscores the application of digital technologies instead of mere awareness, reflecting a shift from abstract technological knowledge towards meaningful and confident technology use. These findings resonate with contemporary literature and 21st Century skills portfolios, which emphasize that effective pedagogy involves the use of digital technology to enhance interaction, collaboration, and active learning, rather than simply using traditional learning methods (OECD, 2024; UNESCO, 2024).

Learner preparation for digital interactiveness is also relevant in the tourism field given its increased digitalization, for example, through Property Management Systems. While digital pedagogical competence was noted as a key outcome of the training program, participants also indicated the importance of emotional intelligence as shall be noted later in section 4.2.5.5. This suggests that digital technological competences do not relegate the importance of human-interactional teaching competencies but should increase the need to balance both the digital technological and relational aspects of teaching practice.

4.2.3 Industry Competence

Industry competence also emerged as a key theme. Participants reported an improved understanding of the tourism industry operations and exposure to real-world practices within the industry, especially during their industrial attachment period, as one reported:

"We have learnt the trick on how to keep your customers and how to keep the quality of your product in good standards. I've been exposed to the industry, and I now know how to cater for my customers" (F5).

These findings corroborate earlier work of Airey and Tribe (2005), and recent work by Dube-Xaba and Qwabe (2023), who noted the need for tourism education to bridge the gap between theory and practice. The present study supports this perspective by demonstrating that the development of the industry's knowledge competence by teachers is a critical mechanism through which the classroom can be aligned to the expectations of the industry. Nevertheless, one should also appreciate that industry knowledge is not to be regarded as static competence, and that teachers need to continually need to update these skills as industry practices continue to evolve.

4.2.4 Entrepreneurship Competence

Participants also largely reported the development of entrepreneurial competences during training, evidenced by incorporating business-oriented thinking and innovation in teaching and career expansion (F7):

"Through this course I have grown my passion for entrepreneurship and I'm now looking at sourcing funding to start my own small business. I'm thinking of even changing my house, which I own in Francistown to even have change it to be a guest house".

The in-service training broadened teachers' understanding of tourism as a sector rich with entrepreneurial opportunities, aligning with calls from literature to prepare students for entrepreneurship. For example, tourism entrepreneurship pedagogy emphasizes the development of competences such as innovation,

creativity, problem-solving, and initiative; critical 21st Century skills, rather than the transmission of business knowledge alone (Dube-Xaba & Qwabe, 2023; Koenen et al., 2015). Nevertheless, entrepreneurship should complement, not compromise, effective pedagogical practice.

4.2.5 Professional Competence

The results also revealed the development of multiple professional competences among teachers. These included communication, time management, teamwork, confidence, emotional intelligence, adaptability, and leadership.

4.2.5.1 Communication Skills

Participants reported improvements in their ability to communicate clearly, engage in dialogue with students, and facilitate interactive learning environments in line with the Experiential Learning Theory:

"I have learned how to communicate. Where I'm coming from, I will be dealing with small people (school children). My oral presentation skills have improved, and I think as a teacher I will be more effective" (I3).

The statement indicates that the program contributed to the development of communication skills that extend beyond classroom instruction. Being a good communicator empowers one and generally gives confidence in life. Communication, which emerged as a new skill from the training, has been classified as a foundational 21st Century skill (Partnership for 21st Century Learning, 2019). The teachers' abilities to effectively engage and communicate with their students, developed in the program, is fundamental for improved educational outcomes.

4.2.5.2 Time Management

Participants (e.g. F2) also highlighted improved time management abilities:

"Everything that we were doing under this course had time frames. There were tests and assignments that had submission deadlines. We learned how to do different things at the same time. We learnt to prepare for the tests while also preparing assignments for more than one module. These deadlines taught us to do our work speedily and conscious of time. This will help us a great deal in time management back in the classroom".

The statement reveals how the identified skills were indirectly developed through reflection. Thus, the constant requirements for teachers to meet submission deadlines cultivated a sense of time management in the teachers. Darling-Hammond et al. (2017) observe that time management is not merely a technical skill, but a critical skill that strongly supports productivity and adaptability in complex teaching environments.

4.2.5.3 Teamwork

Another subtheme elicited was teamwork as commented below:

"Working as groups gave us the chance to interact with each other, to know each other, to learn how to collaborate and work with diverse people" (I1).

The above quote suggested that in-service training provides opportunities for team building and collaborative learning among teachers, which in turn, are transferred to the classroom. This is in harmony with the social constructivist perspectives, which emphasize the role of interaction and shared knowledge construction in learning processes (Bruner, 1996). These findings also resonate with earlier observations from scholars that collaboration is a fundamental 21st Century skill for the educational environment and the workplace (Thornhill-Miller et al., 2023), including the tourism industry where successful service provision requires effective coordination and collaboration among members.

4.2.5.4 Confidence

Participants also highlighted that their confidence improved from the training program:

"We were initially unable to effectively talk before a group of people and now we gained that much confidence. It contributed to our confidence especially in public speaking because we had a lot of presentations during those modules" (I4).

The finding indicates that the program contributed to improved confidence in participants' public interaction capabilities extending beyond classroom delivery. These observations align with Koenen et al.'s (2015) observations that confidence is both a direct outcome and a reinforcing mechanism of competence development. Nevertheless, while confidence is acknowledged here, it should be appreciated that there is a huge difference between felt and demonstrated confidence. This underscores the importance of post training follow-ups to assess if this confidence will be translatable into real practice by the teachers.

4.2.5.5 Emotional Intelligence

The students' report corroborates scholars' views on the importance of emotional intelligence as an important competence in education and the tourism industry:

"We learned a lot in hospitality on how to deal with emotions. If you are stressed or are down, you must put a smile to your customers or clients. You should not show them that you are sour. Now that I'm a teacher, my clients are students. I now know that if I'm down or stressed I must put that smile and accommodate them" (F6).

The finding indicates that emotional competence development extended beyond technical classroom teaching skills to include relational dimensions that influence teachers' effectiveness in general student engagement, as indicated by Kalinowski et al. (2020). The tourism industry, being people-based, is underpinned by interaction between staff and the guests. The development of emotional intelligence among teachers is thus indispensable, as it enables them to model and cultivate this integral skill in students.

4.2.5.6 Adaptability

Adaptability also emerged as a critical competence developed during in-service training in line with extant literature (e.g. Darling-Hammond et al., 2017; Koenen et al., 2015):

"Doing our internship at the hotels, taught us to adapt. Unlike in the teaching field, we were working very long hours there. That on its own built us and made us adapt to a different industry. We had to stand on our feet from the minute of getting into the hotel until knocking off. With this resilience, I take it that it is going to help us to not only adapt into the real hospitality industry but also as we go back to our teaching profession" (F2).

Participants reflected on the need to respond to changing teaching contexts, student needs, and evolving tourism industry demands. This was especially enhanced by the internship activities of the program. To enhance graduate employability and relevance in the tourism workplace, it is important for adaptability and responsiveness to start with the teachers themselves.

4.2.5.7 Leadership skills

Participants also identified improved leadership skills as an important outcome of their training, particularly for group-based activities:

"As a group leader you had to see that tasks are done by all the people. This naturally led you to ensure that the group is properly led and coordinated to produce the results" (F3).

This response suggests that respondents perceived the in-service program to have enhanced their ability to lead, aligning with contemporary perspectives that characterize teachers as leaders (e.g. Kong et al., 2020). Leadership is key in tourism, given its labour-intensive nature and the time sensitivity of its demand.

4.2.6 Non-Emergence of Curriculum Competence

Another key theme emerging from the findings was the non-emergence of curriculum competence as an outcome of the training program. No respondent reported developing this competence, which involves interpreting and adapting curricula to meet students' needs (Tran & O'Connor, 2024). This absence is concerning given the growing recognition of teachers as active curriculum designers who continuously adapt learning experiences to evolving market and learner needs, rather than mere implementers (Darling-Hammond et al., 2017; Dube-Xaba & Qwabe, 2023). This gap likely reflects the current program's focus on tourism industry management rather than tourism teaching competences, suggesting the need for a dedicated tourism teacher education program addressing curriculum-related issues.

5. Conclusion

This paper examined the competences developed through a THM in-service degree program at a university in Botswana and its contribution to tourism teacher education. The program facilitated the development of multi-dimensional and interrelated teacher competences, i.e. subject matter, pedagogical knowledge, industry knowledge, entrepreneurial competence, and professional competence. The study also noted that 21st Century skills were embedded within these competences, positioning teacher competence developed from the initiative as a holistic construct aligned to contemporary educational and industry demands. This study emphasizes the need for a holistic balance in traditional teacher

competence development and for intentional embedding of curriculum competences in future teacher professional development training. The study extends the application of Kolb's Experiential Learning Theory by showing that, in the context of in-service teacher education, experiential learning contributes not only to knowledge construction but also to the development of entrepreneurial and professional competencies that are essential for effective teaching and lifelong professional growth.

Practically, the study recommends stronger collaborations between educational institutions and the tourism industry to ensure that both in-service training programs and tourism education in schools reflect extant industry practices. From a policy perspective, policies should fully support the integration of 21st Century skills and entrepreneurial competences into tourism education. Such policies would ensure that graduates are prepared, not only for employment, but also to start their own companies and become employers.

6. Limitations

The study's main limitations include its restriction to one program and country, an exclusively female sample, potential recall bias from post-training data collection, and possible researcher-participant bias given two researchers' roles as program lecturers. The study was also prone to response bias due to the self-reporting approach adopted. Response bias, which could be unintentional or intentional is, however, a common feature of qualitative research (Júnior, 2022). Participants also noted broader challenges outside this paper's focus, such as structural difficulties of integrating into a conventional generic degree program and industry reluctance to accommodate adult students as interns.

Conflict of Interest

The authors declare no conflict of interest.

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AI Declaration Statement

This study made use of ChatGPT to enhance sentence construction.

7. References

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