UNIVERSITY OF CAPE COAST

VIEWS OF LECTURERS AND STUDENTS ON THE APPROPRIATE WAYS OF INCORPORATING INDUSTRIAL TRAINING INTO THE B.Ed. ACCOUNTING CURRICULUM: THE CASE OF UNIVERSITY OF CAPE COAST

EUGENE AMOAKO NSOWAH

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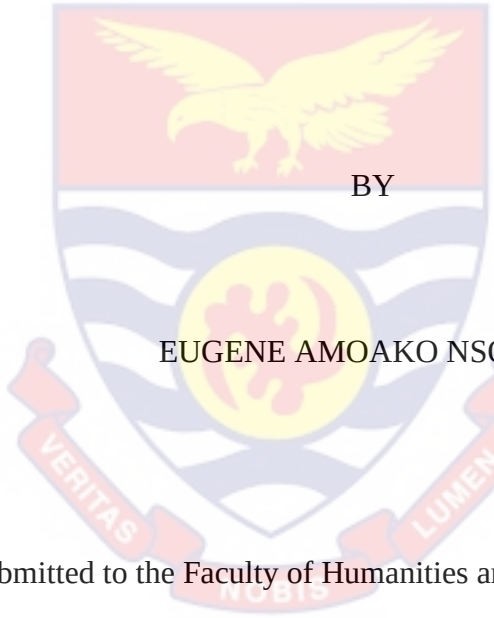

BY

EUGENE AMOAKO NSOWAH

Thesis submitted to the Faculty of Humanities and Social Sciences Education of the College of Education Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Master of Philosophy Degree in Accounting Education

JULY, 2023

DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature:..... Date:.....

Name: Eugene Amoako Nsowah

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature:..... Date:.....

Name: Alhaji Prof. M. B. Yidana

Co-Supervisor's Signature:..... Date:.....

Name: Dr. Bernard Fentim Darkwa

ABSTRACT

The study sought to examine the relevance of the Industrial Training program and its effective integration into the B.Ed. Accounting curriculum. A mixed-methods concurrent triangulation design was adopted to achieve this goal. The study population included final-year accounting education students from the Department of Business and Social Sciences Education at the University of Cape Coast. Using the census method, all 130 B.Ed. Accounting students were included for quantitative data collection, while 12 lecturers teaching B.Ed. Accounting students were conveniently selected for qualitative data. A multi-stage sampling approach, combining purposive, census, and convenience sampling techniques, was employed. Data collection tools consisted of a 5-point Likert scale questionnaire (ranging from strongly disagree [1] to strongly agree [5]) and an interview guide. Quantitative data were analyzed using means, standard deviations, frequencies, and percentages, while qualitative interview data were transcribed and thematically analyzed inductively. The findings emphasized the significance of Industrial Training and the necessity of incorporating it into the B.Ed. Accounting curriculum. Furthermore, the study highlighted the importance of strong collaboration between the department and industry for the successful implementation of the program. Based on these findings, the study recommended that key stakeholders, such as Deans and Heads of Department, take intentional steps to establish the required structures and measures to ensure the effective integration of Industrial Training into the B.Ed. Accounting curriculum.

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DEDICATION

To my late parents Mrs. Rebecca Ofori and Mr. George Nsowah Amoako.

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CHAPTER ONE

INTRODUCTION

Background to the Study

Industrial training has emerged as a vital element of university education globally, offering students the chance to acquire hands-on experience in real-world professional environments (Renganathan, Karim & Li, 2012). This hands-on training complements academic instruction and equips students with essential occupational skills (Renganathan, Karim & Li, 2012). Recognizing the importance of practical knowledge, many universities have incorporated industrial training into their curricula, allowing students to connect classroom learning with real-world skills.

Over the past three decades, the integration of accounting-based technologies in governance has become central to the New Public Management (NPM) reform agenda, driving operational efficiencies and improving accountability in public service delivery (Kurunmaki & Miller, 2006). These developments highlight the increasing demand for professionals equipped with both theoretical and practical knowledge of accounting, as the discipline continues to play a critical role in government reforms, budgeting, and performance evaluation (Narayan & Stittle, 2018). For accounting graduates to stay relevant in recent job market, they must possess not only academic knowledge but also hands-on experience with accounting tools and practices.

In higher education, industrial training provides students with an avenue for short-term experiential learning, helping to transfer technology and knowledge from the professional world into the academic environment (Wilkinson, 2008). It strengthens the relationship between universities,

students, businesses by facilitating the development of practical skills that prepare students for the workforce (Crnković-Pozaić, 2006). In developed countries like the UK, industrial training programs are well-regulated and often mandatory, as seen in the sandwich placement system, which integrates professional work experience into undergraduate programs (Busby, 2003; Kalanda, 2021).

In Ghana, where the educational sector is continually evolving to address the needs of a developing economy, efforts have been made to reform tertiary education to produce a skilled and effective workforce. However, unlike in developed countries, industrial training is not yet compulsory in most university programs. Although some institutions offer industrial training voluntarily, it remains largely unregulated and domestically focused (Akomaning et al., 2011). Despite this, many universities in Ghana have recognized the importance of industrial training and are considering making it a prerequisite for certain fields of study (Obasi, 2015).

The Bachelor of Education (B.Ed) in Accounting program at the University of Cape Coast, for instance, is designed to equip students with the knowledge and skills necessary to teach accounting in various educational settings. While the program provides students with a solid foundation in accounting theory and pedagogy, it lacks a compulsory industrial training component that would expose students to the practical applications of accounting in professional environments. Although students in the program participate in off-campus teaching practice, this experience is focused primarily on classroom management and instructional techniques. It does not provide students with the opportunity to gain hands-on experience in the business world

or develop a deeper understanding of the practical challenges accountants face in the workforce.

The University of Cape Coast's Department of Business and Social Sciences Education lecturers have stated that industrial training should be an element of the B.Ed. Accounting programme. They believe that introducing a structured, compulsory industrial training program would better prepare accounting education students for their future roles as educators and practitioners. By gaining practical experience in the accounting field, students would not only enhance their teaching abilities but also develop the professional skills needed to succeed in the broader accounting profession.

Given the undeniable benefits of industrial training, the challenge now lies in determining the most effective ways to integrate it into the existing curriculum. This study seeks to explore the views of both lecturers and students at the University of Cape Coast on how industrial training can be successfully incorporated into the B.Ed Accounting program. The ultimate goal is to ensure that accounting education students graduate with a well-rounded education that combines theoretical knowledge, pedagogical skills, and practical experience.

Statement of the Problem

In today's rapidly evolving job market, employers express growing concerns about the skills gap among graduates. While businesses continue to demand graduate talent, there is persistent worry about the job readiness of many graduates (Department for Business Innovation and Skills, 2015). A study by the Chronicle of Higher Education (2012) found that employers prioritize industrial training and practical experience over purely academic achievements like Grade Point Average (GPA) (Maseka, 2020). Many graduates from

universities in Ghana, particularly those pursuing accounting education, are often ill-prepared for the practical demands of the workforce, contributing to the country's high rate of graduate unemployment (Tymon, 2013; Harsha 2023).

Accounting education, as outlined by the International Education Standards (IES) established by the International Accounting Education Standards Board (IAESB), highlights the need to combine theoretical learning with practical, real-world experience (IAESB, 2019). Similarly, Section 9 of the International Education Guidelines (IEG) by the International Federation of Accountants (IFAC) stresses that academic training should prepare future accountants to adapt and evolve in their careers by incorporating hands-on experience (Khemiri, 2021).

One of the most impactful ways to connect classroom learning with professional preparedness is through industrial training. This practical approach allows students to apply theoretical concepts in real-world scenarios, equipping them with valuable experience (Renganathan, Karim & Li, 2012). Acknowledging its significance, universities worldwide are increasingly integrating industrial training, internships, and work placements into their programs to boost the employability of their graduates (Clarke, 2018).

Despite the benefits of industrial training, research in Ghana has shown that little effort has been made to incorporate it as a compulsory component of university curricula, especially in accounting education (Simpson, Onumah, & Oppong-Nkrumah, 2016; Onumah, 2019). Studies by Bawakyillenuo et al. (2013) have explored the link between tertiary education and industrial development in Ghana but did not address how industrial training could be systematically incorporated into university programs. In particular, for B.Ed

Accounting students at the University of Cape Coast, there is no mandatory industrial training program that ensures students graduate with the practical skills they need for the job market.

While these students undergo off-campus teaching practice, this alone is insufficient to prepare them for the real-world applications of accounting, especially in the business sector. Off-campus teaching practice may expose students to classroom management and teaching methodologies, but it does not provide them with the hands-on, industrial-level experience necessary to understand and teach the practical aspects of accounting (Adusei, 2018; Mensah, Jobson, Mitchual, & Obeng, 2019). Conversations with instructors at the University of Cape Coast's Department of Business and Social Sciences Education emphasize how crucial it is to incorporate industry training into the curriculum.. Some faculty members revealed that the department is actively considering this move but is still in the process of identifying the most effective strategies for implementation.

In light of these difficulties, the need to investigate how instructors and students view the most effective approaches to integrate industrial training into the University of Cape Coast's B.Ed. Accounting program is what motivates this study. The objective is to guarantee that students studying accounting education acquire the practical skills necessary for success in the teaching profession as well as the accounting field, in addition to a solid academic foundation.

Purpose of the Study

The main goal of this study was to investigate practical ways to integrate Industrial Training into the B.Ed. Accounting program at the University of Cape Coast.

Research Objectives

To achieve the purpose of the study, the study specifically sought to determine the:

1. perceptions students and lecturers have on the relevance of incorporating industrial training into the B.Ed. Accounting curriculum.
2. possible measures that can be adopted for effective incorporation of industrial training in terms of collaboration with industries and placement.
3. possible measures that can be adopted for effective incorporation of industrial training in terms of time and duration.
4. appropriate modes of assessing students' in industrial training programme.

Research Questions

To address the research objectives, the study was guided by the following research questions:

1. What perceptions do students and lecturers have on the relevance of incorporating industrial training into the B.Ed. Accounting curriculum?
2. What are the possible measures that can be adopted for the effective incorporation of industrial training in terms of collaboration with industries and placement?
3. What are the possible measures that can be adopted for the effective incorporation of industrial training in terms of time and duration?
4. What are the appropriate modes of assessing students in industrial training programme?

Significance of the Study

The current study holds significant value, especially for the Bachelor of Education (B.Ed) Accounting program at the University of Cape Coast. Primarily, it addresses the pressing need to incorporate industrial training into the curriculum, ensuring students are equipped not only with theoretical understanding but also with practical, hands-on skills. While the existing curriculum focused on academic knowledge and off-campus teaching practice, it fell short of giving students the chance to practice in an accounting setting what they have learnt. The study aimed to identify effective strategies for incorporating industrial training, ensuring that students not only understood accounting concepts but also applied them in real-world business settings.

By investigating the views of lecturers and students, the study offered valuable insights into how industrial training could be seamlessly embedded into the program. This helped close the distance between classroom learning and professional practice, ensuring that graduates were well-prepared for the demands of the job market. Specifically for accounting education students, it provided them with the practical understanding needed to teach accounting more effectively and to transition into the professional accounting field if they chose to.

The study was also important for policymakers and educational authorities in Ghana. It highlighted the necessity of making industrial training a mandatory part of tertiary education, particularly for programs designed to prepare students for professional careers, like accounting education. The findings encouraged curriculum developers to align educational programs more

closely with industry needs, ensuring that graduates had the competencies required to thrive in the evolving job market.

For researchers and academics, this study adds to the growing body of knowledge on industrial training, especially within the context of developing nations like Ghana. It offers a framework for future studies on how industrial training can be effectively integrated into various academic fields and institutions, ensuring that higher education remains relevant and aligned with the needs of the labor market. Furthermore, the study serves as a valuable resource for curriculum developers seeking to improve graduate employability by embedding practical, hands-on experiences into academic programs.

Ultimately, this study played a pivotal role in transforming the B.Ed Accounting program at the University of Cape Coast, making it more holistic and aligned with global best practices in education and workforce preparation..

Delimitation of the Study

The scope of this study was confined to accounting education students and their lecturers within the Department of Business and Social Sciences Education at the University of Cape Coast (UCC). This focus was intentional, as the study centered on the accounting education curriculum and its specific needs. It did not extend to other departments, institutions, or geographical locations, as the primary goal was to examine how industrial training could be effectively integrated into the accounting education curriculum at UCC. The study sought to identify practical strategies for incorporating industrial training to enhance the curriculum and better prepare students for professional challenges.

Limitations of the Study

The scope of this study was limited to a small group of participants, specifically Bachelor of Education (B.Ed) Accounting students and a few lecturers from the University of Cape Coast. Due to this, the findings and recommendations could not be fully generalized to other universities in Ghana or to the wider student population. The focus on one university, while providing in-depth insights into the views of students and lecturers within this specific context, limited the ability to draw broader conclusions that applied to all universities offering accounting education programs across the country.

Moreover, time constraints and limited resources posed significant challenges during the research process. These factors restricted the study to a single institution and prevented the inclusion of participants from other universities, which could have provided a more comprehensive view of the topic. A comparative analysis between multiple Ghanaian universities would have enriched the findings and potentially revealed different perspectives on the integration of industrial training into accounting education curricula.

To mitigate these limitations, the study employed a thorough and systematic approach in gathering data from the selected participants. The researcher ensured that the views of both students and lecturers were well-represented to offer a balanced perspective on the research topic. Despite the limitations, the study provided valuable insights into the specific situation of the B.Ed Accounting program, while recognizing the need for further investigation to broaden the scope and applicability of the findings to other institutions in Ghana.

Definition of Terms

To help readers better understanding of key concepts in the study, the following terms were clearly explained.

Industrial training: A hands-on, real-world experience where students can put their classroom learning into practice, helping them build important skills and prepare for their professional careers.

Collaboration: A connection or partnership formed between industries and educational institutions.

Placement: The process of placing students in different industries to gain hands-on, real-world experience.

Time for industrial training: The specific time during a student's academic program when they will participate in industrial training.

Duration for Industrial Training: The duration or length of time that the industrial training will take place.

Organisation of the study

A thorough literature review including conceptual frameworks, empirical findings, and theoretical perspectives pertinent to the research was presented in Chapter Two after Chapter One's introduction laid the groundwork for the study by defining the problem, background context, purpose articulation, research objectives, guiding questions, scope limitations, and structural organization. The study's methodological framework was then described in Chapter Three, which included the selected research paradigm, approach, and design as well as information on the study's geographic setting, population characteristics, sampling strategy, data collection tools, analytical techniques, and ethical standards compliance. Chapter Four presented the results of the data

collected through questionnaires and interview guides, along with discussions of the findings. The study's summary of findings, conclusions, and recommendations were finally covered in Chapter 5. Additionally, recommendations for additional study were given.

CHAPTER TWO

LITERATURE REVIEW

Overview

This chapter examined related studies carried out by other researchers, which were relevant and valuable to the current research. It offered a thorough exploration of various concepts and variables central to the study. To ensure clarity and a comprehensive understanding, the chapter was organized into three main sections: the theoretical review, conceptual review, and empirical review. Each of these sections was discussed in detail to provide a solid foundation for the study.

Theoretical Review

This review examined a number of models and frameworks that served as a basis for comprehending the phenomenon being studied. In order to facilitate the incorporation of industrial training into the accounting curriculum, key elements of pertinent models were examined. Researchers have discovered several stages of industrial training, known as Internship Stage Models, as noted by Adosi (2018). To provide direction and insight into the research process, particular models, including the Kiser model, the Sweitzer and King model, and the Inkster and Ross model, were analyzed for this study. These models helped shape the approach to implementing industrial training effectively.

Internship Stage Models

Inkster and Ross Model (1998)

Inkster and Ross (1998) created a six-stage internship model to outline the steps involved in completing an internship. The first stage according to them was the. Inkster and Ross (1998) describe the first stage of their internship

model as the *arrangement and anticipation of the internship*, where students secure positions in organizations for their training. During this stage, students often feel a mix of excitement, high expectations, enthusiasm, and some self-doubt. The second stage, known as *orientation and identity establishment*, involves students adjusting to their new environment, learning unfamiliar processes, and finding their place within the organization. This phase often brings surprises as students encounter tasks they didn't anticipate. The third stage focuses on *reconciling expectations with reality*. Here, students start to notice significant differences between what they learned in school and the actual demands of the workplace, which can lead to feelings of frustration. In the fourth stage, *productivity and independence*, students become more comfortable in their roles, start contributing meaningfully to the organization, and grow in confidence and self-reliance. The fifth stage, *closure*, involves wrapping up the internship. Students reflect on their achievements, clarify ongoing professional relationships, and end connections that are no longer needed. Emotions during this stage can include sadness, as trainees may feel overlooked by colleagues, as well as disappointment. Finally, the sixth stage, *re-entry and practical application*, deals with students transitioning back to academic life, future careers, or further studies. At this point, they may feel uncertain about how to apply the skills and experiences gained during their training to their future endeavors.

Sweitzer and King Model (1999)

Sweitzer and King, recognized as experienced internship mentors, also came out with a five-stage internship model after reviewing literature. Sweitzer and King's five-stage model starts with the *anticipation stage*, where students

experience a mix of excitement, positive expectations, and some anxiety. Their morale during this phase ranges from mild to moderate. The next stage, *disillusionment*, sees a drop in enthusiasm as trainees realize their expectations may not align with reality, leading to feelings of disappointment. In the third stage, *confrontation*, students push through their challenges, working hard to overcome setbacks and gradually building confidence as they take on more responsibilities independently. The fourth stage, *competence*, marks a turning point where trainees feel a strong sense of accomplishment, high morale, and increased self-esteem as they master their roles. The final stage, *culmination*, focuses on the relationships students have built with colleagues, customers, and supervisors. As the internship comes to an end, students feel motivated by these connections but also experience a decline in productivity and a mix of emotions as they prepare to leave.

Kiser's Model (2015)

Kiser, an internship coordinator, developed a four-stage internship model based on her personal experiences. According to Kiser (2015), internships typically progress through four distinct phases. The first stage, called the *pre-placement stage*, involves all the preparatory activities needed to get students ready for their internship before it officially begins. This includes tasks like identifying and evaluating potential organizations for placements, defining work schedules, coordinating with workplace supervisors, and setting personal schedules. Both academic supervisors and departments play a key role in this phase. The second stage, known as the *initiation stage*, marks the start of the actual internship experience. During this phase, trainees begin to familiarize themselves with the work environment, their colleagues, and customers.

Workplace supervisors also start evaluating their performance at this point. The third stage, the *working stage*, is when trainees fully engage in their assigned duties and responsibilities. This phase is characterized by strong communication between supervisors and trainees, as well as efforts to address any gaps in expectations. Trainees begin to build confidence in their abilities, but Kiser emphasizes that supervision remains crucial and should not be reduced during this time. The final stage, the *termination stage*, involves wrapping up the internship. Trainees focus on completing any unfinished tasks and reflecting on their overall performance. They also consider how the skills and experiences gained during the internship will benefit their professional and personal growth as they prepare to move on.

The three models discussed earlier outline the various stages involved in industrial training. While each model has its unique structure, they all share similarities in their approach. This study focuses on exploring ways to integrate an industrial training program into the university curriculum. Based on the study's objectives, Kiser's (2015) four-stage model comprising the pre-placement, initiation, working, and termination stages is the most relevant framework. To align with the study's purpose, the implementation of the industrial training program can be broken down into three key phases: planning/preparation (covering pre-placement and initiation), actual internship/fieldwork (aligned with the working stage), and assessment (linked to the termination stage). This simplified structure provides a clear pathway for incorporating industrial training into the curriculum effectively.

The first phase constituting *planning and preparation*, focuses on laying the groundwork. This is where careful planning and preparation take place. This

involves mapping out the industry landscape, establishing partnerships with relevant organizations, and matching students to suitable placements. Decisions are also made regarding the timing and duration of the program to align with both academic and industry needs. Additionally, students are briefed on what to expect, and supervisors are assigned to guide them throughout the process. This stage ensures that everything is in place before the hands-on experience begins. The second phase is where the real action happens, the *actual internship or fieldwork*. This is the moment where students step into the professional world, gaining firsthand exposure to how industries operate. It's an opportunity to bridge the gap between theory and practice, as they apply classroom knowledge to real-world tasks. Beyond technical skills, they also develop soft skills like communication, teamwork, and problem-solving, which are crucial for their future careers. Finally, the process concludes with the *evaluation phase*. After completing their training, students' performance is assessed to determine the effectiveness of the program. This step helps identify whether the objectives were met and highlights areas for improvement. It also ensures that any gaps or challenges encountered during the internship are addressed, paving the way for better outcomes in future iterations.

Together, these three stages create a structured and impactful learning journey, equipping students with the tools they need to thrive in their chosen fields.

Conceptual Review

This section of the literature review focused on examining various perspectives and insights from other researchers, shedding light on the different components central to the study. It also delved into the core ideas and themes

that form the foundation of the research, aiming to provide readers with a clearer and more comprehensive understanding of the topic. To achieve this, the literature was organized and analyzed around the following key concepts:

The Concept of Industrial Training

Industrial training, often referred to as on-the-job training, internships, or apprenticeships, is a structured program where students gain hands-on experience within organizations, institutions, or companies over a specific period (Adosi, 2018). This practice allows students to bridge the gap between theoretical knowledge acquired in classrooms and real-world applications in professional settings. Recognized as a critical component of university curricula, industrial training plays a pivotal role in preparing students for their future careers (Renganathan, Karim & Li, 2012; Gebeyehu & Atanaw, 2018). It offers students the chance to develop practical skills and insights into their chosen fields before they graduate, making it an indispensable part of their educational journey. According to Zainun et al. (2020), industrial training represents a crucial transition phase in one's career development. Nduro et al. (2015) describe it as a short-term experiential learning opportunity where students acquire practical knowledge and workplace exposure relevant to their area of study. Depending on the organization or circumstances, trainees may or may not receive financial compensation during this period.

Industrial training has its origins in the late Middle Ages, when mentors or experienced practitioners in particular trades oversaw apprenticeships. According to Bert, Kaplan, and Soly (2007), it is a system that is intended to train people in a certain vocation while they are employed, frequently in conjunction with classroom education. Historically, this practice originated in

Europe's trade guilds, where master craftsmen employed young apprentices in exchange for food, shelter, and training (Chen, 2015; Smith, 2017). These apprentices typically served their masters for extended periods, sometimes up to ten years, until they mastered their craft and could work independently (Adosi, 2018). However, in countries like Britain, this system faced criticism for exploiting young workers, leading to reforms and the introduction of more structured programs such as internships, attachments, and on-the-job skills training. These changes have shaped the diverse forms of industrial training seen today, tailored to various trades and industries.

Industrial training has a lengthy history in nations including France, Germany, India, Pakistan, the United Kingdom, and the United States, each of which has modified the system to fit its own particular circumstances.. For instance, France and Germany have successfully integrated vocational and technical education with industry needs through systems like Germany's "dual system," which emphasizes hands-on training in workplaces alongside classroom learning (Andoh, Boadi, & Minlah, 2016). In France, the government encourages companies to participate in industrial training by offering tax incentives, resulting in higher engagement rates and better-prepared graduates. Dondofema, Mwenje, and Musemwa (2020) highlight that in 2005, approximately 80% of French graduates who underwent industrial training secured employment shortly after completing their studies, underscoring the program's value.

The On-the-Job Training Act, which required enterprises to adhere to training standards established by the Central Apprenticeship Council, gave industrial training official status in India in 1961 (Sarkar, 2020). Similar to this,

Pakistan promoted technical and vocational education by enacting the National Apprenticeship Ordinance in 1962 and comprehensive rules in 1966. By 2008, over 30,000 trainees were enrolled in 2,751 companies across 276 trades, reflecting the system's widespread adoption (Asghar & Hafeez, 2008).

The United States has also embraced industrial training as a means to equip students with professional competencies. Legislative frameworks like the Smith Hughes Act, the National Industrial Recovery Act, and the National Apprenticeship Act support the fact that, in contrast to many other nations, U.S. trainees frequently get incentives during their training. These policies have significantly expanded the program, with trainee numbers rising from 375,000 in 2014 to 500,000 in 2016 (Lerman & Rauner, 2012; Dondofema et al., 2020).

Germany's dual system remains a standout model, with trainees spending most of their time in industries and minimal time in classrooms. This approach has led to over 51% of young people graduating with trade qualifications, supported by a licensing system overseen by the Chamber of Industry and Commerce. In the United Kingdom, industrial training evolved from unpaid apprenticeships in the 12th century to more structured programs by the 18th century, where trainees received regular stipends for their work (Dondofema et al., 2020).

Although industrial training originated in Western countries, it has also gained traction in Africa. Nations like Ghana, Nigeria, Botswana, and Kenya have integrated it into their educational systems to enhance workforce skills. For example, Ghana's Polytechnic Law of 1992 mandated Higher National Diploma programs to focus on producing graduates ready to contribute to the economy (Andoh et al., 2016).

In summary, industrial training has a rich history and has evolved significantly over the centuries. Its importance lies in its ability to prepare students for professional life, offering them a glimpse into the working world before they enter it fully (Nduro et al., 2015; Baharom et al., 2017). Today, it continues to grow in popularity, with more institutions incorporating it into their curricula to complement academic learning (Adosi, 2018).

Relevance of Industrial Training

Undoubtedly, industrial training programs provide substantial advantages to host firms, educational institutions, and the industry at large in addition to students. Given its importance, promoting its incorporation into academic curriculum requires a thorough understanding of the concept and its applicability (Oladokun & Ayodele, 2015). Countries should recognize these advantages and actively promote industrial training to foster continuous growth and enhance industrial productivity.

Students are the primary beneficiaries of industrial training, as they are at the heart of these programs. Educational institutions implement such initiatives to help students bridge the gap between theory and practice by combining classroom learning with real-world work experience. Numerous studies have explored the impact of industrial training on academic performance, with researchers like Surridge (2009), Madurapperuma (2014), Nor and Ismail (2015), and Obasi (2015) consistently finding that students who participate in industrial training tend to perform better academically than those who do not. These programs expose students to practical environments where they can apply what they have learned in class, transforming abstract concepts into tangible experiences (Matamande et al., 2012; Edziwa & Chivheya, 2015).

This hands-on exposure helps students develop a deeper understanding of their field, fostering a positive attitude toward work and increasing their independence in shaping their professional careers.

Anjum (2020) highlights another key benefit: industrial training allows students to build professional networks and learn from experienced practitioners. Through engagement with industry professionals, students gain valuable insights into diverse career opportunities and the specific skills needed to succeed in those roles. This exposure enables them to make well-informed decisions about their future career paths. Beyond academic growth, industrial training fosters the development of key employability skills, such as communication, leadership, problem-solving, teamwork, and interpersonal abilities, all of which are essential for a seamless transition from academia to the workplace (Mgaya & Mbekomize, 2014). These experiences play a significant role in shaping their personal and professional growth.

Industrial training programs are specifically designed to strengthen students' knowledge, skills, and expertise, ensuring they are well-prepared for the demands of future employment. By engaging directly with real-world scenarios, students move beyond theoretical assumptions and gain practical insights into their field of study (Merritt, 2008; Edziwa & Chivheya, 2015). Additionally, the feedback students receive during training helps them identify areas for improvement, enabling them to address weaknesses and refine their abilities (Baharom et al., 2017).

The benefits of industrial training extend beyond students to educational institutions and host organizations. For educational institutions, these programs help build strong relationships with industry partners. Schools often collaborate

with organizations, conduct regular visits to monitor student progress, and gather feedback from supervisors, all of which contribute to refining their curricula to more effectively align with the requirements of industry (Mgaya & Mbekomize, 2014). This ensures that graduates are well-prepared for the job market, reducing the gap between employer expectations and student capabilities.

Industrial training also enhances the reputation of educational institutions. The performance of students during training reflects the worth of training they have obtained, thereby promoting the organization's brand. When students excel, they elevate the institution's standing, attracting high-caliber students and fostering a positive image (Tien, Minh & Dan, 2019). As Obasi (2015) notes, these programs provide valuable insights into factors that improve student performance, enabling institutions to refine their training approaches.

Host organizations also reap substantial benefits from participating in industrial training programs. Edziwa and Chivheya (2015) point out that many organizations utilize trainees' services at minimal cost, reducing labor expenses by 10% to 15%. Similarly, Mgaya and Mbekomize (2014) found that organizations can save up to 4% of their costs through such programs. These savings can be reinvested into other areas of the business, such as inventory expansion or marketing, driving further growth. Additionally, organizations can identify and retain top-performing trainees as future employees, ensuring a pipeline of skilled workers (Dondofema, Mwenje, & Musemwa, 2020). Trainees also bring fresh perspectives and innovative ideas, which can benefit the organization's operations and strategies (Obasi, 2015).

The significant contributions of industrial training to trainees, universities, and professional workplaces underscore its importance in the educational system, particularly at the tertiary level. To maximize its impact, concerted efforts must be made to implement these programs effectively and ensure their continued success.

Nature of Industrial Training Programme

Depending on the situation and the particular objectives of the organizations putting them into place, industrial training programs might differ greatly. Internationally, industrial training has been incorporated into educational systems in France, Germany, India, Pakistan, the United Kingdom, and the United States (Asghar & Hafeez, 2008; Lerman & Rauner, 2012; Andoh et al., 2016; Dondofema et al., 2020). These programs are designed to provide students with hands-on experience, preparing them for their future careers. However, the structure and execution of these programs differ based on the objectives of the institutions offering them (Matamande, Taderera, Nyikahadzoyi, & Mandimika, 2012).

According to Matamande et al. (2012), universities typically oversee the entire industrial training process, from planning to evaluation. This includes coordinating with industries, placing students, setting timelines, and establishing assessment criteria to determine whether students have met the required standards. The organization and implementation of these programs can vary significantly across institutions.

In the United Kingdom, for example, many Home Economics institutions incorporate a one-year industrial training component into their curriculum. This is often aimed at evaluating the impact of practical experience

on students' academic performance. Second and final-year students participate under the guidance of a supervisor and are required to submit a detailed report at the end of the training period (Surridge, 2009). Similarly, in Malaysia, Universiti Technologi Petronas mandates a 32-week industrial training program for all students during the second semester of their third year. This is a compulsory part of their four-year degree program, similar to the structure at Universiti Kebangsaan Malaysia. The Students' Industrial Internship Unit at Universiti Technologi Petronas manages the program, ensuring smooth collaboration between the university and industry partners (Renganathan, Karim, & Li, 2012; Jamaluddin et al., 2013). At Universiti Kebangsaan Malaysia, however, the Faculty of Engineering and Built Environment takes charge of organizing and supervising the training. The Malaysian Engineering Accreditation Council (EAC) requires engineering students to complete at least eight weeks of industrial training after their third-year exams to qualify for their degree (Jamaluddin et al., 2013).

In Africa, industrial training is also a key component of many academic programs. For instance, at the University of Zambia, library and information science students undergo a six-week training program during their third-year long vacation. Students are responsible for securing their placements and must adhere to the rules of the host organizations. Their performance is evaluated through weekly activity reports submitted to visiting lecturers, as well as assessments from their supervisors (Maseka, 2020). Similarly, at the University of Zimbabwe, accountancy students are required to complete a 32-week industrial training program in their third year. The Industrial Liaison Office (ILO) manages the program, ensuring strong ties between the university and

industry. Students are assessed based on reports from both their supervisors and visiting lecturers (Matamande et al., 2012).

Ghana has also recognized the importance of industrial training, with many institutions offering opportunities for students to gain practical experience. Students often choose their preferred organizations for placements, which can last from six weeks to six months (Nduro et al., 2015; Munyoro et al., 2016). Unlike some countries, industrial training in Ghana is typically voluntary and unpaid (Esia-Donkoh, Amihere, & Addison, 2015). Upon completion, students submit a comprehensive report detailing their performance, responsibilities, achievements, and areas for improvement. Organizations in Ghana have shown a strong willingness to support these programs, reflecting their commitment to fostering practical skills among students.

The goal of Ghana's polytechnic education system was to enhance technological proficiency and promote Technical and Vocational Education and Training (TVET) (Nduro et al., 2015). All polytechnic institutions, which have since been transformed into technical universities, were required to provide industrial training in order to ensure that graduates meet industry standards. For instance, Takoradi Technical University mandates that every student undergoes industrial training as part of their academic program. The program is managed by an Industrial Liaison Office and varies in duration and format depending on the field of study. For instance, engineering students undergo Competence-Based Training (CBT), while fashion design students participate in a semester-out program. The training typically lasts between 12 and 16 weeks, aligning with the objectives of other polytechnic institutions (Nduro, 2015).

At Central University in Ghana, industrial training is a requirement for students pursuing a degree in communication studies. In order to obtain real-world experience in journalism, public relations, and advertising, third-year students take part in the program (Antwi, Duncan, & Tsegah, 2019). In a same vein, final-year teacher education students at the University of Cape Coast and the University of Education, Winneba, finish a one-semester practical training program. This is supervised by both university lecturers and experienced school tutors, ensuring students are well-prepared for their teaching careers (Esia-Donkoh et al., 2015).

From these examples, it is evident that industrial training programs are commonly scheduled after the second semester of the third year. By this stage, students have typically completed most of their coursework and are equipped with the necessary knowledge for the training. Placements are either arranged by the students themselves or coordinated by the institution, and the duration of the program can range from six weeks to 32 weeks. Assessment is usually based on reports from supervisors and visiting lecturers, who evaluate students' performance and progress. Table 1 provides a summary of various studies on the nature of industrial training programs.

Table 1: Summary of research works conducted on the nature of Industrial training

Theme	Sub-Theme	References
Placement	Self-placement	Munyoro et al. (2016); Esia-Donkoh, et al. (2015); Matamande et al. (2012); Antwi (2019); Maseka (2020);
	Placement by department /faculty	Jamaluddin, et al. (2013); Abdul (2020),
	Placement by ILO	Nduro et al. (2015); Matamande et al. (2012); Renganathan, Karim & Li. (2012).
Duration	24 to 52 weeks	Surridge (2009); Matamande et al. (2012); Renganathan, Karim & Li. (2012).
	14 to 24 weeks	Abdul (2020), Munyoro et al., 2016; Nduro et al., 2015 Nduro et.al., (2015)
	6 to 12 weeks	Munyoro et al., 2016; Nduro et al., 2015, Esia-Donkoh, et al., 2015; Maseka, 2020).
Time	After Ist year	
	After 2nd year	
	After 3rd year	Jamaluddin, et al. (2013), UiTM (2020), Abdul (2020), Antwi, Duncan& Tsegah (2019). Esia-Donkoh, et al. (2015). Matamande et al. (2012). Maseka (2020).
Assessment	Reports by superiors	Abdul (2020). Jamaluddin, et al. (2013), Matamande et al. (2012). Maseka (2020).
	Logbooks	Jamaluddin, et al. (2013)
	Reports by visiting lecturers	Abdul (2020). Esia-Donkoh, et al. (2015). Matamande et al. (2012). Maseka (2020).
	Written Examinations	
	Graded	Matamande et al. (2012). Maseka (2020). Renganathan, Karim & Li. (2012).
	Not graded	

Collaboration of Industries and Placement

Collaboration between industries can be understood in two ways: as partnerships among different industries or as alliances between academic institutions, such as colleges and universities, and industries. For this discussion, the emphasis is on the collaboration between universities and industries. In many nations around the world, this kind of collaboration has a long history (Ankrah & AL-Tabbaa, 2015; Gann, Montresor & Eisenberg, 2018). Universities have been essential to the development of contemporary economies, propelling both academic and technological innovation (Pinheiro et al., 2015).

The increasing demand for creating an academic environment that not only excels in research but also fosters the development of technological skills and knowledge through hands-on experience has intensified the need for university-industry collaboration (Perkmann et al., 2013). Universities play a vital role in producing graduates who are well-equipped with both academic knowledge and practical technological expertise, which is achieved through effective partnerships with industries. These collaborations, focused on technology transfer and skills development, bridge the gap between theoretical learning and real-world applications.

According to the National Employer Leadership Council in the USA, such collaborations have proven beneficial for all parties involved. It has been observed that when students engage in industry-university partnerships, they tend to perform better academically, have higher attendance rates, and are less likely to drop out of school (Nyarko & Amegbor, 2019). This underscores the

positive impact of industrial exposure on students' academic and professional growth.

As noted by Mustafa, Hussain, and Zulkifli (2022), industrial collaboration requires mutual agreements between universities and industries to effectively implement industrial training programs. These agreements ensure that both parties understand and establish the necessary conditions for smooth operations. Such arrangements help minimize cultural differences between the academic environment and the corporate world, ensuring a seamless integration of training programs that benefit students, academic institutions, and industries alike. According to Pierola (2018, p.3);

> *"Collaboration between academia and industry is increasingly a critical component of efficient national innovation systems. It is useful to examine the experience of developed countries to better understand the different types of university-industry collaboration, motivations to form these agreements and barriers to cooperation, as well as the role of public policy in fostering such linkages. Developing countries face even greater barriers to such alliances, calling for a differentiated approach to promoting university-industry collaboration"*

The relationship between universities and industries is symbiotic, as both rely on each other to cultivate a skilled workforce capable of driving national growth and technological advancement (Mustafa, Hussain, & Zulkifli, 2022). However, the rapid evolution of industry expectations often poses a challenge for educators, who struggle to keep pace with these shifting demands (Zulkifli et al., 2018). To address this, it is essential for educational institutions to

collaborate closely with industries. Such partnerships enable educators to stay informed about the latest job market requirements and integrate these insights into their curricula. This alignment ensures that graduates are well-prepared and equipped to meet industry needs, fostering a seamless transition from academia to the workplace. Effective management of these collaborations can unlock significant benefits for both parties, including the introduction of innovative ideas into industries and the creation of new research opportunities for academic institutions (Gann, Montresor, & Eisenberg, 2018; Rybnicek & Königsgruber, 2019).

Creighton (2018) identifies four primary forms of industry-university collaboration: knowledge and research sharing, workshops and conferences, industrial training programs, and certification programs. Among these, industrial training programs are particularly vital. In order to ensure that students have access to training opportunities, educational institutions must collaborate closely with industries (Uganda Business and Technical Education Board, 2015). This collaboration is critical, as it opens doors to a wide range of industries, ensuring students have access to meaningful and effective training experiences.

Once these partnerships are established, the next step is placing students in relevant industries. Scholars have suggested a number of ways to help with this process, but the most popular ones are placement through an Industrial Liaison Office (ILO) or self-placement (Renganathan, Karim, & Li, 2012; Matamande et al., 2012; Jamaluddin et al., 2013; Nduro et al., 2015; Munyoro et al., 2016; Esia-Donkoh et al., 2015; Antwi et al., 2019; Abdul, 2020; Maseka, 2020). In some cases, students are asked to identify their preferred organizations

for training, after which the university formalizes the arrangement through a written agreement. However, research by Antwi et al. (2019) highlights the challenges students face in securing placements. Many students reported feeling demotivated and stressed when organizations delayed or rejected their applications, only to offer placements at inconvenient times. To alleviate this burden, some universities provide a list of available organizations through their ILO or relevant departments, allowing students to choose from pre-vetted options. This approach reduces the pressure on students and ensures a smoother placement process (Jamaluddin et al., 2013).

The Uganda Business and Technical Education Board (2015) stipulates that the task of assigning students to firms for industrial training must be handled by educational institutions or their designated departments. Similar to this, student placements in Ghana are managed by the Industrial Liaison Office or the appropriate department (Nduro et al., 2015; Andoh et al., 2016; KTU, 2021). These structured systems aim to streamline the placement process, ensuring students gain valuable industry experience without unnecessary stress or delays. By fostering strong industry-university collaborations and implementing effective placement strategies, educational institutions can better prepare students for the demands of the modern workforce, ultimately contributing to national development and innovation.

Duration for Industrial Training

Duration, as defined by the Merriam-Webster dictionary, refers to the period during which something exists, continues, or takes place. In the context of industrial training programs, duration signifies the scheduled timeframe required for the training to be effective and meaningful. There is no universally

accepted length of time for various forms of industrial training, despite the fact that the idea has been the subject of numerous studies (Busby & Gibson, 2010; Akomaning, 2012; Holyoak, 2013; Stansbie, Nash, & Jack, 2013; Jamaluddin et al., 2013; Phang et al., 2014; Kiser, 2015; UBTEB, 2015; Adosi, 2018; Antwi et al., 2019). However, these studies consistently emphasize that the length of the program should align with its objectives and the nature of the training. Adosi (2018) highlights that industrial training programs worldwide typically span between three to six months, reflecting a general standard.

Some researchers argue that the duration of an effective industrial training program should not be rigidly fixed. Instead, they suggest that training should occur in multiple intervals throughout a student's academic journey (UBTEB, 2015; Antwi et al., 2019). This approach involves conducting training sessions during long vacations at the end of each academic year, alongside regular coursework, until the student graduates. UBTEB (2015) recommends that these training sessions should last between six to twelve weeks during the long vacation. This method is believed to enhance students' practical understanding and contribute significantly to their overall professional growth. By integrating training with academic studies, students can gradually build their skills and confidence, preparing them for future careers.

On the other hand, longer training periods are often viewed as more beneficial. CEPTA (2017) advocates for a six-month training duration, asserting that it is the best approach to shaping students into experts in their disciplines while enhancing their confidence. Similarly, Antwi et al. (2019) suggest extending the duration of industrial training to maximize its positive impact on students. These findings indicate that longer training periods provide students

with deeper insights, better preparation for the workforce, and improved career prospects.

In summary, research supports the idea that longer industrial training durations yield more favorable outcomes for students compared to shorter ones. Phang et al. (2014) note that extended training periods lead to personal growth, improved program management, enhanced job readiness, and stronger career opportunities. Given these benefits, it is crucial to consider extending the duration of industrial training programs when designing or implementing them within educational systems. This method guarantees that students acquire the essential skills and experience needed to succeed in their chosen careers.

Assessing Students in the Industrial Training Programme

Assessment is crucial in the education sector, acting as an important instrument in shaping students' future careers (Bender, 2020). Simply put, assessment involves assigning value to a student's performance or progress in a given task, helping to measure their achievements and growth. According to Bender (2020), this process is essential for various purposes, such as accreditation, student evaluation, admission and placement decisions, providing feedback, and tracking academic progression. Assessments can be categorized into two main types: formative and summative. Formative assessments occur during the learning process at regular intervals, helping educators identify specific learning needs and adjust teaching methods to enhance understanding. On the other hand, summative assessments are conducted at the conclusion of a learning period to measure what students have accomplished (Dixson & Worrell, 2016; Aggarwal, 2020; Bender, 2020).

For any industrial training program to be effective, it must include a robust and reliable system for monitoring and evaluating trainees' performance. Such a system ensures that students are progressing as expected and acquiring the skills necessary for their professional development (Aggarwal, 2020). Assessments are conducted both during and after the training program to ensure that trainees meet the established criteria. Different industrial training programs employ various assessment methods tailored to their specific goals and structures.

In countries like the United States and Germany, independent examination boards, known as chamber organizations, oversee the assessment of trainees. These boards consist of representatives from schools, management, and industry professionals, operating separately from those who provide the training. Upon completing the program, trainees receive a Dual VET certificate from the chamber organization, which is officially acknowledged nationwide by the government (Elliott & Farnbauer, 2021).

In Malaysia, the assessment process involves two primary supervisors: one from the educational institution and the other from the industry where the training takes place. This dual-supervisor approach is supported by the Student Empowerment & Research Unit (2015), which emphasizes the importance of evaluations from both academic and industry perspectives. However, Phang et al. (2014) point out a potential challenge with this system: conflicting scores from the two supervisors can lead to disagreements, often due to a lack of standardized assessment procedures. To address this, the Uganda Business and Technical Education Board (2015) suggests assigning an additional supervisor in cases of conflicting interests.

The grading of industrial training programs varies depending on the institution. For example, at Central University in Ghana, the training is structured as a three-credit-hour course, with grades contributing to the overall degree requirements. The final score is determined equally by evaluations from a visiting academic supervisor and feedback from the workplace supervisor, each accounting for 50% of the grade. However, Antwi et al. (2019) note that some students perceive this system as unfair, expressing concerns that workplace supervisors might inflate scores due to personal relationships or biases. Depending on the program, students may receive letter grades (A to F) or a simple Pass/Fail designation after meeting all training requirements (Student Empowerment & Research Unit, 2015).

The main purpose of assessing industrial training is to measure the quality and relevance of students' work in alignment with the program's goals. This can be accomplished using a variety of methods, such as feedback reports from industry supervisors and visiting lecturers, training summaries, logbooks or attendance records, on-site observations, student presentations, executive summaries, employer surveys, and seminar discussions (Yusof et al., 2012; Jamaluddin et al., 2013; Phang et al., 2014; Uganda Business and Technical Education Board, 2015; Student Empowerment & Research Unit, 2015; Antwi et al., 2019). Logbooks, for instance, document students' daily activities during the training, providing a detailed record for assessment. Executive summaries allow students to reflect on their experiences, while seminar presentations offer a platform for them to articulate their learning verbally. Employer surveys provide additional insights into trainees' performance, but the most critical assessment tool is often the visiting lecturer, who gathers firsthand information

about the training environment and its alignment with program goals (Jamaluddin et al., 2013).

It's essential to keep in mind that monitoring and supervision in assessments are not intended to weed out underperforming students but to support and guide them in adapting to the workplace. Supervisors should foster a supportive environment that encourages growth and learning, helping trainees develop the skills and confidence needed for their future careers (Aggarwal, 2020).

Conceptual framework

Figure 1 illustrates the conceptual framework that guided this study, drawing on insights from the literature reviewed. This study used the Internship Stage Models as its theoretical foundation to explain the process of incorporating industrial training into the B.Ed. Accounting curriculum. The framework examined four key variables: perceptions, collaboration with industries, time and duration, and assessment. Each variable was aligned with the stages of student progression in industrial training as outlined by the Internship Stage Models. The framework was designed to help understand how these variables interact with each other to achieve the effective incorporation of industrial training in the B.Ed. Accounting curriculum.

The first variable examined the perspectives of students and lecturers on the importance of industrial training in accounting education. The Internship Stage Models highlight how students' perceptions can affect their experience in each stage of the internship. For example, during the anticipation stage, students are excited but unsure of what to expect. If students have positive perceptions of industrial training, they are more likely to be enthusiastic and motivated to

engage in the learning process, which is essential for progressing through later stages. Lecturers' perceptions are equally crucial, as they serve a key role in shaping how industrial training is structured in the curriculum. If lecturers see value in the programme, they will provide the necessary support and guidance during the internship phases. In essence, strong positive perceptions create an enabling environment where both students and lecturers view industrial training as an integral part of professional growth and development.

Partnership amid institution of higher education and industries is crucial for a successful industrial training programme. This variable explores how partnerships can be effectively established and maintained to ensure students are placed in relevant industrial environments where they can gain practical experience. The Internship Stage Models emphasize the importance of the disillusionment and competence stages, where students need mentorship from industry professionals to overcome challenges and build confidence.

During these stages, industry supervisors are crucial in helping students transition from passive observation to active participation in tasks. The curriculum must therefore facilitate strong industry partnerships that allow students to engage meaningfully with their work environments, thus supporting their professional development.

Time and duration are key factors that influence how students progress through the stages of the internship. The Internship Stage Models show that students need adequate time to move from the confrontation stage, where they begin to apply their academic knowledge, to the culmination stage, where they demonstrate independence and competency. This variable focuses on finding the optimal time frame for industrial training to allow students to complete each

stage successfully. Too short a duration may prevent students from gaining in-depth experience, while a longer duration may overwhelm them if not adequately structured. The curriculum needs to allocate sufficient time for students to fully immerse themselves in the work environment, ensuring they transition smoothly through the stages of the internship.

Effective assessment methods are critical for evaluating students' progress through the internship. According to the Internship Stage Models, assessment must be allied with the specific expertise required at each stage of the internship. For instance, in the competence stage, students should be evaluated on their ability to apply theory to practice, while in the culmination stage, assessments should focus on their independence and problem-solving abilities. This variable explores appropriate modes of assessment, such as supervisor reports, student self-reports, oral presentations, and written exams. The curriculum must integrate these assessment tools in a way that reflects the stage-specific competencies outlined by the models. This ensures that students are not only participating in the training but are also being evaluated on their growth and development throughout the experience.

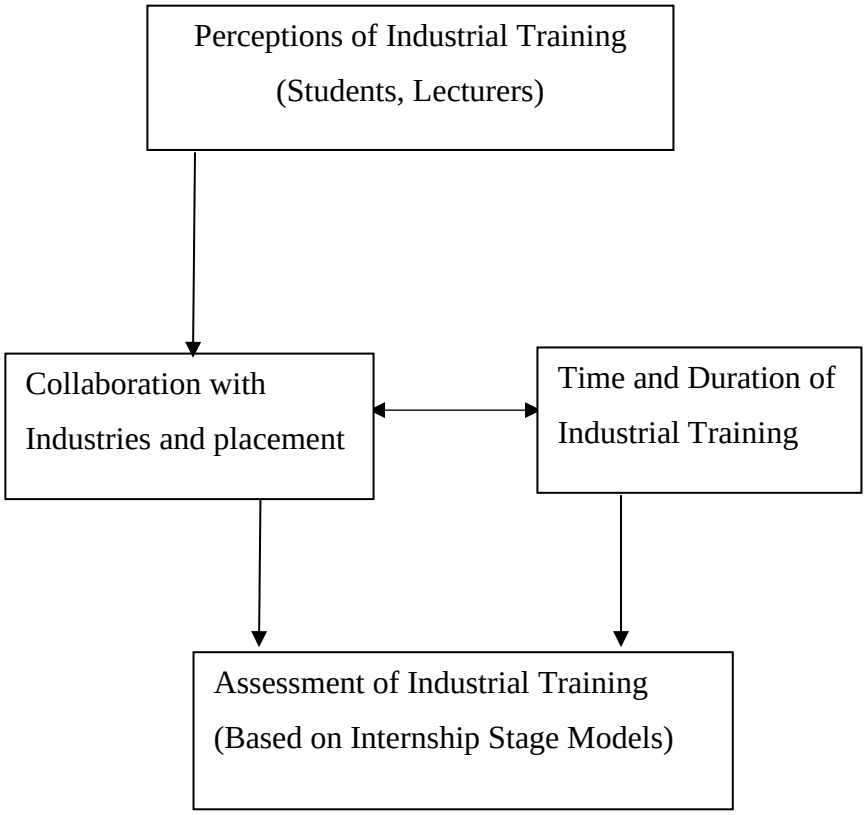

Figure 1: The study's conceptual framework

Source: Author's own construct (2022)

Empirical Review

This section of the literature review focused on exploring empirical studies related to industrial training programs and their implementation strategies. It involved a thorough examination of previous research conducted by various scholars, with a critical analysis of their goals, the contexts in which their studies were carried out, the methodologies they employed, and the outcomes they achieved. The analysis was guided by the sub-themes derived from the research problem, ensuring relevance and coherence. The section concluded by summarizing the key insights and highlighting their implications for future research in the field.

Relevance of Industrial Training

In the United States, Matusovich et al. (2019) explored the perspectives of academic professionals regarding industrial training experiences across six institutions using a qualitative approach. The study involved interviews with 13 career center staff and 14 academic advisors or faculty members from diverse geographical locations. The responses were coded, and patterns were identified. All participants emphasized the critical role of industrial training in students' professional growth, job placement, and career exploration.

Similarly, Maseka (2020) conducted a case study in Zambia, focusing on the industrial attachment program for library and information science students at the University of Zambia. Using a mixed-method approach, the study gathered data from 70 students, three lecturers, and three supervisors through questionnaires and interviews. Descriptive statistics were used to analyze the findings. The results highlighted that students gained self-reliance, resilience, and openness to challenges, technical expertise, and a sense of accomplishment through the training. However, challenges such as limited resources, supervisor workload, and lack of transportation, accommodation, and meals were noted as barriers to effective training. The study recommended that the Ministry of Education address these issues to enhance the program's effectiveness.

In Malaysia, Renganathan et al. (2012) quantitatively examined students' perceptions of an eight-month industrial training program at a private university. A survey was administered to assess students' views on the program's impact. The findings revealed that students viewed the training positively, acknowledging its contribution to their personal and professional development.

Another study in Malaysia by Osman et al. (2016) evaluated the effectiveness of a 12-week industrial training program. Using a quantitative approach, 47 third-year students completed surveys assessing their knowledge, skills, and attitudes before and after the training. The data, analyzed using Winstep and Microsoft Excel, showed that 50% of students reported improved knowledge and skills, while 39% noted no change in their attitudes. This suggests that while the program enhanced technical competencies, its impact on personal attitudes was limited.

In Nigeria, Oladokun and Ayodele (2015) investigated the significance of the Industrial Work Experience Scheme (IWES) for real estate education at Obafemi Awolowo University. A survey of 182 students revealed that the program provided essential practical experience, technical skills, and social competencies, underscoring its value in professional preparation.

Similarly, Obasi (2015) studied the impact of industrial training on student performance at Benson Idahosa University in Nigeria. Using a quantitative approach, 53 students were surveyed on six performance variables. The analysis, which included descriptive statistics, correlation, t-tests, and regression, found that factors such as remuneration, training relevance, tool usage, and supervisor support significantly influenced performance. The study recommended integrating industrial training into accounting curricula to enhance student outcomes.

In India, Dasgupta (2021) explored professionals' perceptions of practical internship for undergraduate students in the hospitality field in West Bengal. A survey of one hundred and one experts from hospitality educational institutions and hotels, conducted via social media, revealed broad agreement

on the program's benefits. However, some respondents noted concerns about the short duration and limited industry involvement, prompting calls for hands-on industry experience ought to be integrated as a non-negotiable element of hospitality curriculum development.

In Ghana, Nduro et al. (2015) examined the experiences of polytechnic students during industrial attachment programs. Using a mixed-method approach, the study surveyed 500 students from Takoradi Polytechnic. The findings highlighted the program's role in enabling students to apply classroom knowledge, use industry technologies, discover their talents, and improve employability. Challenges such as inadequate preparation and resource constraints were also identified.

Alexander et al. (2018) conducted a cross-sectional study in Kumasi, Ghana, to assess the impact of industrial training on graduate employability. The study involved 93 employers and 120 graduates, with data analyzed using Wilcoxon's signed-rank test. The results confirmed that industrial training significantly enhances employability, leading to recommendations for students to actively acquire relevant skills during their training.

Lastly, Ayarkwa et al. (2012) investigated how construction companies evaluate the performance of KNUST student interns during their practical training periods. A survey of 120 industries in Accra, Kumasi, and Cape Coast revealed that while students gained teamwork and instruction-following skills, their independence, decision-making, and social skills needed improvement. The study recommended closer collaboration between educational institutions and industries to provide better guidance and supervision during training.

The findings collectively validate the critical nature of work-based learning in harmonizing university instruction with industry expectations, simultaneously revealing aspects of these programs that could be strengthened for greater effectiveness.

Collaboration with Industries and Placement

In Malaysia, Datuk and Melintang (2019) utilized quantitative research methods to evaluate students' impressions of their structured workplace learning experiences. Using the quantitative approach, the researchers collected data through questionnaires and analyzed it using SPSS. The findings highlighted the importance of collaboration between industries and polytechnics, emphasizing that the effectiveness and operational efficiency of practical training initiatives rely heavily on establishing meaningful cooperative relationships among all involved parties. This suggests that successful training programs rely heavily on the synergy between educational institutions and industry stakeholders.

Similarly, Arfandi (2020) investigated the collaboration between vocational high schools and industries in Makassar, Indonesia, focusing on how this partnership contributes to graduate competence. The study employed questionnaires, documentation, and interviews to gather data from 120 students, selected through proportionate random sampling. Descriptive and path analysis techniques were employed for data analysis. It was revealed that cooperation between schools as well as industries significantly enhances students' mastery of competencies, underscoring the value of such partnerships in vocational education.

In Ghana, Effah et al. (2014) examined the industrial training programs in polytechnics, aiming to identify key issues affecting their effectiveness. A simple random survey approach was used to collect data from 282 student participants, with subsequent analysis performed using descriptive statistics and one-way ANOVA. The research findings underscored how collaborative relationships between training sites and educational institutions significantly contribute to program improvement. However, students often face challenges in securing placements due to competition from peers at other institutions. The researchers recommended greater recognition of the program and stronger institutional support to help students secure placements and acquire the necessary skills.

Building on this, Ayarkwa, Adinyira, and Agyekum (2011 conducted a study at the Kwame Nkrumah University of Science and Technology (KNUST) in Kumasi, Ghana to examine the difficulties encountered by undergraduate construction students during their Industrial Training program. A survey of 185 students in their final year revealed that most students relied on relatives to secure placements, with only a few receiving assistance from their departments. This lack of departmental involvement in placement and monitoring left students dissatisfied and stressed. The study called for stronger collaboration between industries and educational institutions to improve placement processes and ensure better support for students.

In a related study, Spio-Kwofie (2016) assessed the readiness of industries in Takoradi Polytechnic to accept trainees for industrial training. Using a similar research design, the study surveyed students and industry workers, analyzing the data using descriptive statistics, including frequencies

and percentages. The findings echoed Ayarkwa et al. (2011), revealing that students often secured placements through personal efforts or connections with relatives and friends, rather than institutional support. The study recommended offering incentives to industries to encourage greater participation in the training program.

In Indonesia, Asfiyanur et al. (2018) investigated the alignment between the proficiencies gained by technical high school students and the expectations of businesses in the industrial machinery field. Using a qualitative approach and purposive sampling, the research included members from Vocational education providers, governmental departments, and business organizations in the industrial sector. The study underscored the value of hands-on experience and the importance of cooperation between businesses and educational organizations in developing relevant curricula. This ensures that the skills students acquire are relevant to employer requirements, enhancing their employability and readiness for the workforce.

Collectively, these studies emphasize the essential importance of teamwork and cooperation between industries and educational institutions in improving industrial training programs. They also underscore the challenges students face in securing placements and the need for institutional support to address these issues. By fostering stronger partnerships and aligning training with industry needs, these programs can better prepare students for successful careers.

Duration for Industrial Training Programme

The implementation of industrial training programs necessitates careful consideration of the time frame and duration allocated for such training. The

significance of duration in facilitating effective training cannot be overstated. This raises the question: what constitutes the appropriate length of time allocated to practical training program?

The opinions of engineering students regarding their experiences with industrial training were investigated in a study conducted in Malaysia by Phang et al. (2014). A structured survey was distributed to 311 engineering students who completed their practical experience program. The findings revealed that students who participated in longer training durations reported more favorable perceptions of the program. Furthermore, the study highlighted a consensus among participants regarding the necessity of extending the standard 12-week training period to ensure that students acquire the requisite skills effectively. A noteworthy aspect of the study was the correlational analysis, which indicated a strong positive correlation between length of time of industrial training and the students' ability to develop a diverse skill set, ultimately enhancing their prospects for future employment.

In a contrasting context, Nauman and Hussain (2018) conducted a qualitative study in Pakistan to evaluate the efficiency of a 6week industrial training period within the realm of Business Education. The researchers aimed to ascertain whether this duration was adequate for trainees to meet their training objectives. Interviews were conducted with a sample of 22 trainees who had completed the program. The results indicated that a majority of the participants felt that the six-week timeframe was insufficient for them to achieve their desired outcomes. This finding underscored the need for an extension of the training duration to better fulfill the educational goals of the program.

Similarly, in Ghana, Spio-Kwofie (2016) assessed the industrial training program at Takoradi Polytechnic in the Western region. The study involved administering questionnaires to both students and industry professionals, and data was analyzed using descriptive statistical methods, such as frequency and percentage. It was indicated that practical experience for two-month period was inadequate to acquire essential abilities and know-hows necessary for their professional development. Consequently, the study recommended an increase in the training duration to three months in order to increase the program's success and impact.

In summary, evidence from these studies across different contexts suggests a consensus on the inadequacy of shorter training durations. The findings advocate for longer industrial training periods to guarantee that all students are adequately equipped with skills and experiences required in future careers. This underscores the importance of duration in creating and executing successful industrial training programs.

Modes of Assessing Students in the Industrial Training programme

Effective techniques for assessing the performance of BA Law students during their industrial training were investigated by Akashe, Esfahani, Nili, and Tabatabaei (2020). They used both qualitative and quantitative methodologies in their study, using questionnaires and semi-structured interviews to collect data. 28 individuals were specifically selected to participate in the interviews for the qualitative phase, which included graduate students, faculty, attorneys, and trainee experts. In the meantime, 114 law students from the 2017–2018 school year and 2015–2017 graduates were chosen to fill out the surveys. The qualitative results demonstrated the thoroughness and dependability of the

professors' assessments of students' performance. On the quantitative side, the study found that important evaluation techniques, like testing students in simulated settings and gauging their diagnostic and practical abilities, were very successful.

Building on this discussion of assessment techniques, Chinyemba and Bvekerwa (2012) carried out an action research study to look into the dynamics and difficulties of Chinhoyi University of Technology's undergraduate industrial training program, with a special emphasis on supervision and assessment. A cross-sectional survey approach was used in their study to examine the program's supervision and assessment procedures' advantages and disadvantages. They created a set of closed-ended and open-ended questions and sent them to 116 final-year students from six different institutions as well as 78 academic staff members. The results showed that the industrial training program's management and evaluation did not follow competency-based guidelines. This was attributed to the fact that the responsibility for evaluating trainees lay entirely with the hosting organizations. As a result, the quality of assessment varied significantly, with students placed in reputable organizations benefiting from more comprehensive evaluations aligned with their field of study. The investigation came to the conclusion that supervisors in the workplace and in academia had problems with their assessment procedures. To address this, the researchers recommended that lecturers take a more active role in conducting competency-based assessments, which would help bridge the gap between workplace experiences and classroom learning.

Summary and Implication for the Study

The literature highlights the significance of industrial training and underscores the need for its effective implementation, taking into account factors such as collaboration with industries, student placement, program duration, and assessment methods. While industrial training offers numerous benefits to students, organizations, and educational institutions, not all programs deliver positive outcomes for participants. For instance, Ayarkwa et al. (2012) conducted a study on the perceptions of industries that hosted construction students from KNUST and found that many students struggled with independence, social skills, and decision-making. These shortcomings were partly attributed to inadequate supervision during the training period. Similarly, Maseka (2020) identified several barriers to the program's effectiveness, including insufficient funding, the heavy workload on supervisors, and challenges related to transportation, accommodation, and meals. Osman et al. (2016) further noted that some students derived little to no benefit from their industrial training experiences.

A recurring theme in the literature is the difficulty of fostering a mutually beneficial relationship between industries and educational institutions. Despite established frameworks for collaboration, achieving a true win-win partnership remains a challenge. Often, educational institutions appear to gain more from these programs than the industries involved (Ayarkwa et al., 2012; Renganathan et al., 2012; Nduro et al., 2015; Obasi, 2015; Oladokun & Ayodele, 2015; Osman et al., 2016; Alexander et al., 2018; Matusovich et al., 2019; Maseka, 2020; Dasgupta, 2021). While industrial training undeniably benefits students and academic institutions, its overall effectiveness is

questionable if industries lack the motivation to actively participate in training students.

Existing research on industrial training has primarily focused on its importance, the evaluation of training programs, and their overall effectiveness. However, there appears to be a gap in the literature regarding the most effective ways to implement these programs. This study aims to address this gap by exploring the best practices for implementing industrial training programs. Specifically, it will examine the critical need for cooperation between businesses and educational organizations, effective strategies for assigning students to placements in suitable businesses, optimal period of training, and the most appropriate assessment methods to ensure students acquire the necessary skills and experience.

It is worth noting that most studies on industrial training (Ayarkwa et al., 2012; Renganathan et al., 2012; Obasi, 2015; Oladokun & Ayodele, 2015; Osman et al., 2016; Dasgupta, 2021) have relied heavily on quantitative research methods. This study utilizes a mixed-methods design, blending quantitative and qualitative techniques, to gain a more thorough insight into the topic. This will allow data triangulation to be done, enhancing the reliability and quality of the research findings.

CHAPTER THREE

RESEARCH METHODS

Overview

This chapter outlines the research methodologies used to gather the necessary information for this study. It begins by defining the research paradigm that informed the selection of the study design and then offers a A detailed explanation of the research design itself. Following this, the chapter details the research approach, the study area, and characteristics of the study population. Additionally, it discusses the sampling methods used to select participants, the instruments utilized for data collection, and the measures taken to confirm accuracy and consistency of data. The chapter also elaborates on the procedures followed for data collection, and the methods of data processing and analysis that were implemented to interpret findings effectively.

Research Paradigm

Research paradigms represent the shared beliefs and foundational principles that guide how researchers approach their work within a specific field (Kodua-Ntim, 2020). These paradigms act as models or frameworks, offering examples of the methodologies and practices commonly used in a particular area of study. They are valuable because they provide a philosophical foundation that helps researchers' select appropriate methods for their investigations. However, while paradigms are rooted in philosophical assumptions, some contemporary scholars argue that these assumptions can sometimes be limiting or exclusionary, potentially marginalizing alternative perspectives (Tachie-Donkor, 2021). The choice of research approach is crucial, as different phenomena require different methods. Researchers must carefully consider the

nature of the phenomenon they are studying to determine the most effective way to explore and explain it (Tachie-Donkor, 2021). In fields like social science and education, three primary paradigms are often emphasized: positivism, interpretivism, and pragmatism (Creswell, 2014).

For this study, the pragmatist paradigm was chosen as the most suitable framework. Originating from the ideas of the American philosopher John Dewey, pragmatism emphasizes practical solutions and flexible approaches to addressing research problems. It encourages the use of diverse techniques and concepts to explore issues comprehensively, offering thoughtful and speculative responses to complex questions. Under this paradigm, researchers are encouraged to consider all possible practical outcomes of their actions, examining how these outcomes affirm or challenge the concepts being studied. This method enables a more in-depth and detailed comprehension of issues, which might not be achievable through a single, rigid methodology (Creswell & Plano, 2011).

Pragmatists operate on the belief that reality is not fixed but is instead shaped by human actions and experiences. What is considered "real" or "true" depends on what proves useful or effective in a given context (Creswell, 2003). From an epistemological perspective, pragmatists value rationality and practical reasoning. Ontologically, they view reality as dynamic and constantly evolving, with no single interpretation holding absolute truth. This perspective leads pragmatists to adopt mixed methods in their research, aiming to uncover multiple interpretations of a phenomenon. Axiologically, pragmatists are mindful of their own biases, which stem from their personal worldviews, cultural backgrounds, and life experiences. To ensure their research is

meaningful and beneficial, they strive to minimize biases and errors, making their findings more reliable and applicable to real-world situations (Kivunja & Kuyini, 2017; Patel, 2015).

Research Approach

The selection of a research technique is deeply influenced by the researcher's philosophical viewpoint and the type of study being conducted (Sarantakos, 2013). There are three primary research approaches: quantitative, qualitative, and mixed methods. Each of these offers a unique way of addressing research problems and uncovering social realities, as noted by Neuman (2006) and Sarantakos (2013). The quantitative approach, which aligns with the positivist paradigm, focuses on systematically studying phenomena through the analysis of numerical data. It establishes a connection between empirical observations and mathematical representations by quantifying relationships and patterns (Goertz & Mahoney, 2012). In contrast, qualitative research is rooted in the interpretive paradigm. It emphasizes understanding experiences, behaviors, and relationships without relying on numerical data. This approach often explores questions such as how, what, when, and where, aiming to describe, interpret, or explain phenomena in depth (Hennink, Hutter & Bailey, 2010; Miles & Huberman, 1994).

The mixed methods approach, the third option, merges aspects of both quantitative and qualitative research to offer a more complete meaning to a phenomenon (Creswell, 2014). By integrating the strengths of both approaches, it addresses limitations that might arise when using a single method. This allows researchers to tackle complex problems that may not be fully understood through one approach alone (Ngulube, Mokwatlo & Ndwandwe, 2009). Mixed

methods enable investigators examine issues from multiple perspectives, offering greater flexibility and depth. Key features of this approach include gathering and evaluating data that is qualitative as well as quantitative, integrating these datasets, and applying them within a single study or across related projects. The process can be designed from a holistic or analytical standpoint, depending on the research goals (Creswell & Plano Clark, 2011).

Given the numerous advantages of the mixed methods approach, it was chosen for this study. Creswell (2009) identifies three main designs within the mixed methods framework: convergent parallel mixed methods, transformative mixed methods, and sequential mixed methods. Each design offers unique ways to combine and apply quantitative and qualitative data, ensuring robust exploration of the problem under study.

Research Design

Employing Pragmatist philosophy for the topic under study, the convergent parallel design was selected. The purpose of this design wass to corroborate the findings produced by each of the methods through evidence generated from the other (Kroll & Neri, 2009). Fetters, Curry, and Creswell (2013) highlighted that the convergent parallel design is one of the most widely recognized and utilized approaches among researchers. This design is particularly effective because it allows for the concurrent gathering and evaluation of qualitative and quantitative data, providing similar importance to both types. The data are analyzed independently, and their integration occurs only during the interpretation phase, guaranteeing a thorough and impartial comprehension of the research findings (Atif, Richards & Bilgin, 2013).

With the convergent parallel design, quantitative data was first collected from B.Ed. Accounting students through questionnaire surveys, following qualitative data through interviews with departmental heads and course instructors. Each dataset was analyzed independently, following its respective analytical procedures. The integration of findings occurred during the interpretation phase which involved the comparison, contrast, and discussion of results from both the quantitative and qualitative phases to yield a unified comprehension of the research issue (Atif et al., 2013). This approach ensured that the strengths of both methods were leveraged, offering a more comprehensive perspective on the study's outcomes.

The chosen convergent parallel design was particularly well-suited for addressing the research questions in this study. By simultaneously collecting quantitative data from students and qualitative insights from lecturers and department heads, the design allowed for an in-depth knowledge of the views surrounding the incorporation of industrial training into the B.Ed. Accounting curriculum. Employing mixed-methods enabled the researcher to thoroughly investigate potential strategies for effectively integrating industrial training into academic programs. This included examining ways to enhance collaboration with industries, improve student placement processes, determine the ideal timing and duration for training, and identify suitable methods for assessing students during their industrial training. By combining quantitative and qualitative insights, the study was able to provide a well-rounded understanding of these critical aspects, offering practical recommendations for optimizing industrial training programs. Ultimately, the integration of findings at the

interpretation stage ensured that the results from both data sources were triangulated, providing a robust and validated solution to the research problem.

Study Area

The University of Cape Coast, established in 1962, is widely regarded as one of Ghana's leading universities. Situated in Cape Coast which is the capital of the Central Region, one of Ghana's 16 regions, the university is approximately 5 kilometers from the Atlantic Ocean, a region historically known as a fishing port. Given that Europeans originally lived in the Cape Coast and established formal education there through castle schools, the region has great historical significance. To this day, the region is renowned for hosting some of the country's top-performing second-cycle schools.

The University of Cape Coast was first established with the primary objective of preparing graduates to teach in senior high schools, but its mission has since grown. It now prepares students for a wide range of professions, including business, educational planning, healthcare, and agriculture. The university has created three new colleges in addition to its original College of Education Studies: the College of Agricultural and Natural Sciences, the College of Humanities and Legal Studies, and the College of Health and Allied Sciences.

As the university continues to broaden its vision and extend its services to various sectors, it has become increasingly important to modernize its curriculum to meet evolving demands. To ensure the production of well-rounded and highly skilled graduates, the introduction of an industrial training program is being considered. Such a program would provide students with practical knowledge, establishing a connection among academic knowledge,

actual application, as well as to further enhance university's commitment to excellence.

Study Population

In research, the term population describes the whole set of people that the researcher aims to study. This group helps define the scope of the study and establishes the criteria for who can be included. Typically, members of a population share certain characteristics that make them relevant to the research, and their perspectives often shape the study's findings. From this broader population, a sample is chose as a representative of the group being studied (Babbie, 2010; Stangor, 2011).

For this particular study, the population included all final-year Bachelor of Education (B.Ed) Accounting students enrolled at the University of Cape Coast during the 2018/2019 academic year. Additionally, lecturers who taught these students were also part of the population. Final-year students were chosen because they were more likely to have participated in industrial training during their academic breaks, which was a key focus of the research. Accounting Education students were specifically selected because their program includes accounting courses but does not require mandatory practical training in the field. This made them a unique group to study in relation to the impact of industrial training on their education.

Lecturers were included because of their direct involvement in teaching accounting courses to B.Ed Accounting students. Their insights were valuable in understanding how industrial training might influence the way accounting is taught and learned. The total target population consisted of 122 final-year B.Ed Accounting students from the Department of Business and Social Sciences

Education and 12 lecturers who taught these students, as reported in the University of Cape Coast's Basic Statistics for 2018. This combination of students and lecturers provided a comprehensive perspective for the study.

Sample and Sampling Procedures

Sampling refers to the methods used to choose a lesser group out of a higher population in a way that the smaller group accurately reflects the characteristics of the whole (Leedy & Ormrod, 2010). The goal of sampling is to guarantee that the chosen group shows an accurate representation of the whole population. Researchers typically determine whether to use non-probability sampling or probability sampling, which depends on random selection, which is more selective. In this study, a mixed sampling approach was used, as it helps minimize errors and improves the reliability of the research findings.

For the quantitative part of the study, the census method was applied to include all 122 final-year Bachelor of Education (B.Ed) Accounting students in the population. This approach was chosen because the total number of students was relatively small, and selecting only a subset would have resulted in an insufficient sample size. By including every student in the population, the study aimed to achieve more accurate and dependable results.

On the other hand, qualitative data was gathered through purposive sampling. Twelve lecturers who taught the B.Ed Accounting students were carefully selected for interviews. According to researchers like Braun and Clarke (2016) and Fugard and Potts (2015), a sample size of at least 12 participants is often sufficient to achieve data saturation in qualitative studies. Convenience sampling was used to identify and recruit these lecturers, ensuring

that they were accessible and willing to participate. In total, the study involved 134 respondents (122 students and 12 lecturers) providing a well-rounded dataset for analysis.

Data Collection Instruments

Survey questionnaires and an interview guide (provided in Appendix A) were used to collect both quantitative and qualitative data for the study. The questionnaire was designed to gather information from students, while the interview guide was used to obtain insights from lecturers. Combining these two methods was expected to offer deeper understanding into the problem under investigation. Creswell (2009) highlights that using a mixed-method approach helps minimize errors, since the advantages of one approach can balance out its drawbacks.

Babbie (2010) describes a questionnaire as a structured document containing a series of questions designed to collect data from respondents for analysis. Survey questionnaire was selected to be the main instrument for gathering quantitative data because it is well-suited for survey-based research and allows respondents ample time to provide thoughtful answers. Additionally, questionnaires offer a level of anonymity, which can lead to more honest and reliable responses (Kothari, 2004). Among the various types of questionnaires, the researcher opted for closed-ended questions to ensure the data could be collected efficiently within a limited timeframe.

When designing the questionnaire, the researcher made use of a 5-point Likert scale, which is widely used for measuring attitudes, perceptions, and opinions. The Likert scale was chosen because it gives a thorough grasp of respondents' opinions by enabling them to indicate how much they agree or

disagree with a statement. A 5-point Likert scale was chosen for the questionnaire because it provides a balanced range of response options, allowing respondents to express varying degrees of agreement or disagreement without overwhelming them with too many choices. This scale, ranging from "strongly agree" to "strongly disagree," was designed to capture respondents' perceptions about integrating an industrial training program into their curriculum. The questionnaire was divided into five sections: A, B, C, D, and E. Section A focused on gathering demographic information about the respondents. Specific issues were covered in Sections B through E, such as the value of industrial training, industry engagement, the optimal training time, placement choices, and program assessment techniques.

For the qualitative aspect of the study, interviews were conducted with lecturers and heads of departments who taught B.Ed Accounting students. Unlike other forms of questioning, interviews rely on verbal interaction to collect detailed and nuanced data (Sarantakos, 2005). This method was chosen to allow lecturers and department heads to voice their opinions freely as well as offer in-depth answers to the research questions. By using interviews, this research sought to obtain a deeper comprehension of their perspectives on proposed industrial training program. Furthermore, interviews provided the opportunity for follow-up questions, which enabled the researcher to clarify responses, probed deeper into specific issues, and captured complex opinions that could not emerge through the questionnaires. This flexibility made interviews particularly suitable for gaining insights into the views of educators on incorporating industrial training into the curriculum.

For the 12 lecturers who lecture B.Ed. accounting students, a semi-structured interview guide was created. According to Bell, Bryman, and Harley (2018), a semi-structured interview entails creating a list of questions based on particular topics; this is commonly known as an interview guide. Open-ended questions that are specific to the main subjects the researcher wants to investigate are part of this strategy. Potential methods for carrying out the industrial training program were the main topic of the interview guide for the department heads and lecturers. It was divided into five sections: the first covered the importance of industrial training; the second looked at industry collaboration; the third looked at the optimal program length; the fourth covered placement options; and the fifth section covered training programme assessment techniques. This structure ensured that all critical aspects of the program were thoroughly examined while allowing flexibility for detailed responses.

Test for Validity and Reliability

To ensure the questionnaire was effective in capturing accurate data relevant to the research objectives, a pre-testing phase was conducted. This step aimed to assess whether participants clearly understood the questions and instructions, as well as to identify any areas needing improvement. The pre-test involved Level 400 B.Com Accounting students from the University of Cape Coast, chosen because their characteristics closely aligned with the target population. A pilot study was carried out with 13 participants, representing 10% of the intended sample size. This approach aligns with Baker's (1994) recommendation that a pre-test sample should ideally be between 10% and 20% of the actual sample size. Feedback from the pre-test was reviewed with the research supervisor, and necessary adjustments were made to refine the

instrument. Additionally, the process allowed for an evaluation of the questionnaire's reliability.

The design of the questionnaire was informed by insights gathered from a thorough literature review, ensuring it reflected key knowledge and practices related to industrial training for both lecturers and students. To enhance its validity, the researcher's supervisor assessed the questionnaire for face and content validity, confirming its appropriateness for the study. Certain questions were rephrased to improve clarity, and additional response options were included in closed-ended questions to facilitate more meaningful data analysis. Consistency in administering the questionnaire further strengthened its content validity.

After the pre-test data was gathered, the Cronbach Alpha reliability coefficient for each questionnaire component was determined using SPSS version 22. In order to assess the items' internal consistency, this step was essential. As noted by Cho and Kim (2015), a Cronbach Alpha value of 0.70 or higher is widely accepted as a benchmark for reliability across various research contexts. The analysis yielded an Alpha value of 0.908 for the 27-item instrument, confirming its reliability for data collection. Additionally, the reliability of each subscale within the questionnaire was assessed by computing separate Cronbach Alpha values. Table 2 provides a detailed breakdown of the reliability coefficients for each subscale.

Table 2: Reliability Coefficient for Each of the Sub-Scales on the Questionnaire

Statements	Reliability Coefficient (α)
Students' perceptions on the relevance of Industrial Training	0.855 (N of items = 7)
Students' perceptions on collaboration with industries and Placement for industrial training	0.644 (N of items = 7)
Students' perceptions on Time duration for industrial training	0.907 (N of items = 6)
Assessment modes for Industrial Training Programme	0.519 (N of items = 7)
Reliability coefficient for sub-scales	0.908 (N of items = 27)

Source: Field Survey (2022)

Two lecturers from the Department of Business and Social Science Education were interviewed in order to assess the semi-structured interview guide's efficacy. These interviews were carefully transcribed and analyzed to assess whether the guide was both consistent and suitable for the study's objectives. This step was essential to confirm that the interview questions were clear, relevant, and capable of eliciting the necessary information to address the research questions. The insights gained from this process helped ensure that the interview guide was well-aligned with the study's goals and could be reliably used to gather meaningful data.

Data Collection Procedures

When conducting educational research, it is essential to obtain approval from both participants and relevant authorities to ensure ethical compliance and cooperation. To facilitate this, an introductory letter was secured from the

Department of Business and Social Sciences Education (DoBSSE) at the University of Cape Coast. This letter served as an official introduction of the researcher to the participants, helping to build trust and encourage the involvement of both lecturers and students in the study. This step proved instrumental in speeding up the data collection process. Recognizing the challenges of distributing questionnaires to students, the researcher enlisted the assistance of two trained field personnel to support the data collection efforts.

For the questionnaire administration, permission was obtained from lecturers to conduct the exercise before their scheduled lectures. With the help of the field personnel, the questionnaires were distributed to final-year accounting students. The researcher emphasized the importance of confidentiality and anonymity, assuring participants that their responses would remain secure and used solely for academic purposes. Students were encouraged to provide honest answers, and the researcher explained the significance of their contributions to the study. Participants were given 15 minutes to complete the questionnaires before the lecture began, with an additional 10 minutes allotted for those who needed more time. Throughout this process, the researcher remained available to address any questions or clarify uncertainties. In total, 111 questionnaires were collected, representing a response rate of 91%.

For the qualitative aspect of the study, a consent form was provided to the lecturers and heads of the Business Departments. They were given the opportunity to review the form and provide their signatures, confirming their voluntary participation without any form of coercion. Interviews were recorded using a digital recorder, and the researcher transcribed the recordings into written documents by the end of each day to ensure accuracy and timeliness.

In line with the ethical standards of the University of Cape Coast, the researcher obtained ethical clearance from the Institutional Review Board (IRB) before commencing the study. This step ensured that all data collection procedures adhered to the university's ethical guidelines, safeguarding the rights and well-being of all participants.

Data Processing and Analysis

A crucial stage of research is data analysis, which entails organizing, interpreting, and presenting the information gathered in order to successfully answer the study questions. First, any inconsistent or unnecessary responses were eliminated from the data collected from the respondents. After being polished, the data were coded and loaded into SPSS version 22 for additional examination. The data was compiled and interpreted using descriptive statistics, such as means, standard deviations, frequencies, and percentages. By making it easier to see the patterns and trends in the data, these statistical tools made sure that the goals of the study were fulfilled.

For the qualitative data collected through interviews, the process began with the electronic recording of the sessions, which were then transcribed verbatim. The transcribed responses were carefully analyzed to identify recurring themes, keywords, and patterns that provided insight into the participants' perspectives. A three-tier coding system was applied to categorize the responses into broader thematic networks. This systematic approach allowed for the organization of data into meaningful clusters, which were then transcribed into findings. The global themes that emerged from the data were analyzed inductively, ensuring that the interpretations were grounded in the

participants' actual responses. This method ensured a thorough and accurate representation of the qualitative data, aligning it with the study's objectives.

Chapter Summary

This chapter outlined the research methodologies employed in the study. A mixed-method approach was utilized, specifically the concurrent triangulation design, which allowed for the integration of both quantitative and qualitative data. For participant selection, purposive sampling was applied to choose Bachelor of Education (Accounting) students. Additionally, the census method was used to include all 122 accounting education students within the target population, ensuring comprehensive representation. Data collection involved administering questionnaires to the 122 students and conducting interviews with 12 lecturers and Heads of Departments using structured interview guides.

The chapter also detailed the analytical techniques applied to the gathered data. Quantitative data were processed using SPSS version 22, while qualitative data were examined through thematic analysis. These methods ensured a robust and thorough examination of the research findings. The subsequent chapter will present and analyze the results derived from this study, providing insights and interpretations based on the collected data.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter focused on analyzing the results gathered from both questionnaires and interviews. The findings from these tools were presented in a structured manner, followed by a detailed interpretation and discussion. The primary aim was to explore how industrial training could be integrated into the Bachelor of Education (B.Ed.) Accounting curriculum.

A total of 122 accounting B.Ed. students in the University of Cape Coast's Department of Business and Social Sciences Education received questionnaires. 111 of these were filled out and sent back, which is a 91% response rate. Some students missed lectures for a variety of reasons, which hindered their ability to participate, which resulted in a little deficit. However, as noted by Johnson and Wislar (2012), a 90% response rate is deemed enough for analysis. A high response rate lowers the possibility of bias by minimizing possible discrepancies between respondents and non-respondents.

For the qualitative aspect, 11 out of the 12 targeted lecturers participated in the interviews, achieving a response rate of 92%. The absence of one lecturer was attributed to their busy schedules, particularly as the semester was nearing its end. Despite this, the participation rate was robust, ensuring a solid foundation for the qualitative analysis.

Demographic characteristics of Respondents

The opening section of the questionnaire and the first question on the interview guide were intended to elicit information from respondents about their background. Information about students' sex, age, and number of years of

working experience for lecturers was sought. This was necessary to provide information about the respondents the research was dealing with in terms of age, different gender groups and number of years in service. The results of the background characteristics are presented in Table 3.

Table 3: Demographic characteristics of Respondents

Variable	Subscale	Frequency (n)	Percentage (%)
Sex of students	Male	71	64.0
	Female	40	36.0
Age (in years)	20-22	15	13.5
	23-25	53	47.7
	26-28	27	24.3
	Above 28	16	14.4
Sex of lecturers	Male	9	81.8
	Female	2	18.2
Years of teaching experience	6-10	3	27.3
	11-15	6	54.5
	16-20	2	18.2

Source: Field Survey (2022)

As shown in Table 3, the majority of respondents were male, accounting for 71 individuals (64%), while females made up 40 (36%). This suggests that the study was predominantly male, which could be attributed to the lower enrollment of females in the Bachelor of Accounting Education Programme. This disparity might stem from personal preferences or societal influences that steer fewer women toward this field.

Regarding the age distribution of respondents, the largest group, 53 individuals (47.7%), fell within the 23–25 age range. This was followed by 27 respondents (24.3%) in the 26–28 age bracket. Smaller groups included 16 respondents (14.4%) aged 20–22 and 15 (13.5%) who were above 28 years old. These figures highlight that the study was primarily composed of young participants, reflecting the youthful demographic of the program.

The demographic characteristics were relevant to the study as they provided context for understanding the diversity of the participants. The gender distribution offered insights into any gender-based patterns or preferences in relation to the topic, such as attitudes towards industrial training or enrollment in the B.Ed. Accounting Education programme. The age categories also helped identify varying perspectives of students at different stages of their academic journey, which could have influenced their views on the incorporation of industrial training into the curriculum. By analyzing these demographics, the study aimed to better understand how different groups might have responded to the research questions.

All the lecturers who were interviewed had between 8 and 16 years of teaching experience in the university system. Out of the 11 lecturers, 2 were male (18.2%) and 9 were female (81.8%). Three lecturers (27.3%) had 6-10 years of experience, six lecturers (54.5%) had 11-15 years, and two lecturers (18.2%) had 16-20 years of teaching experience. The researcher believes that, given their extensive experience, these lecturers possess the necessary knowledge and insight regarding the importance of implementing industrial training and the potential strategies for effective incorporation into the B.Ed.

Accounting programme. Their years of service make their perspectives valuable in considering the possible approaches to enhancing industrial training.

Presentation and discussion of Results

This section presents the study's key findings, organized around themes that arose in response to the research questions. The findings are provided in tables for clarity and simplicity of interpretation. Data were gathered utilizing questionnaires with a five-point Likert scale ranging from strongly disagree to strongly agree. The replies were analyzed using the mean and standard deviation. A mean score greater than 3.4 was read as agreement with the proposition, whilst a score less than 2.5 indicated dissent. Scores that fell between these two figures were termed neutral.

Interview data were transcribed and documented to provide qualitative data. The researcher thoroughly examined the transcripts to detect common themes. A thematic analysis approach was then used to identify, analyze, and report on patterns in the data. The findings from both quantitative and qualitative data are presented and discussed in relation to the study topics.

Research Question 1: What perceptions do students and lecturers have on the relevance of incorporating industrial training into the B.Ed. Accounting curriculum?

Presentation of quantitative data

As stated in the first research question, the purpose of this phase of the study is to collect students' opinions regarding the value of industrial training and the need for its implementation. In Section B of the survey, students were asked to use a scale to assess different assertions in order to investigate this. Responses with a mean score between 3.5 and 5.0 were interpreted as

agreement, while scores between 1.0 and 2.4 indicated disagreement. Students who agreed with the statements generally viewed industrial training as beneficial and supported its inclusion in the curriculum, whereas those who disagreed did not see its relevance. The findings from the respondents are summarized and presented in Table 4.

Table 4: Relevance of Industrial Training to Students

Statement	Mean (n)	Std. Dev. (SD)
Industrial Training presents an opportunity for students to apply theories at workplace	4.12	.96
Industrial Training helps students to develop interests in accounting through practice	4.18	.88
Industrial Training helps students to develop technical skills (the required expertise)	4.15	.86
Industrial Training improves students' human relations skills with industry players (i.e. employers, employees and clients)	4.23	.80
Industrial Training provides students with broad work experiences	4.21	.91
Industrial Training provides students with a broader understanding of classroom concepts	4.13	.86
I support the implementation of a compulsory industrial training programme in accounting education	4.02	.96
Mean of Means/Average Standard Deviation	4.15	0.89

Source: Field Survey (2022).

Table 4 highlights students' perspectives on the importance of industrial training and its integration into accounting education curriculum. A significant majority of students expressed resilient agreement that participating in industrial training enhances their ability to create and uphold professional relations with industry experts. The sentiment is reflected in the high mean score of 4.23, accompanied by SD of 0.8, indicating general consensus among respondents. Similarly, students agreed that industrial training provides them with broad work experiences, as reflected in a mean of 4.21 and SD of 0.91, suggesting consistent support for this statement with slightly more variation in responses compared to the previous one. The statement that industrial training helps students develop interests in accounting through practice received a mean of 4.18 and SD of 0.88, while the view that industrial training helps develop technical skills had a mean of 4.15 and SD of 0.86, both indicating strong agreement with relatively low variability in responses.

Students also agreed that industrial training provides an opportunity to apply theories in the workplace and offers a broader understanding of classroom concepts, with means of 4.13 (SD = 0.86) and 4.12 (SD = 0.96), respectively. The support for implementing the industrial training programme was evident with a mean of 4.02 and SD of 0.96, reflecting overall agreement with the concept, though with a slightly higher variation in responses. These results suggest a general consensus among students regarding the importance and benefits of industrial training, with the standard deviations indicating that most students shared similar views, although some variability exists in their responses.

Presentation of qualitative data

To gain further insights, interviews were conducted with lecturers and department heads to explore the relevance of industrial training and the necessity of its inclusion in the academic curriculum. The respondents unanimously agreed that industrial training plays a vital role in a student's academic journey and should be made a mandatory component of their program.

Under the first research question, one key theme emerged: industrial training is highly beneficial for students, and its implementation is essential. Respondents emphasized that it closes the distance between academic learning and industry demands, providing students with practical, hands-on experience. They also highlighted that it deepens students' understanding of classroom concepts, enables them to apply theoretical knowledge in real-world scenarios, and prepares them to become more effective educators by offering tangible examples and realistic insights. Below are some excerpts from the lecturers' responses:

> *"I think it will be very important because like we have been teaching, it is good you know actually what pertains to the industry and even though we are training our students for the teaching profession, some do not end in the classroom, they end up in the industry. Hands-on experience will help our students become better teachers and set realistic examples" [Lecturer 2 (L02)]*

> *"Yes it is very very important and should be considered because the new dispensation in terms of what other universities are practicing now is attachment which helps students to put more theories into practice and gives them more practical sense" [L03]*

"I know Industrial Training is very very important because it gives hands-on experience to students and gives an in-depth understanding of what is taught in class. But the issue will be how it could be incorporated especially the mode of assessment" [L06].

"It is advisable that students go on industrial attachment that is why we have inculcated in our programme document so we are going to do that and it is going to be compulsory" [L09].

"Certainly, it is important because that is where we can actually close the gap between the school and the industry so it will be necessary to augment whatever we give our students with a compulsory industrial training" [L10].

Discussion

The findings from both the quantitative and qualitative data provide a comprehensive understanding of the relevance of industrial training to B.Ed. Accounting students at the University of Cape Coast. The general mean score of 4.15 demonstrates that students perceive industrial training as highly beneficial. This aligns with previous research (Ayarkwa, Adinyira & Osei-Asibey, 2012; Nduro et al., 2015; Alexander et al., 2018), which suggests that industrial training is essential for bridging the gap between theory and practice, equipping students with hands-on experience that enhances their understanding of classroom concepts.

Students strongly agreed that industrial training improves their human relation skills with industry players (mean = 4.23, SD = 0.8). This is consistent with findings by Renganathan et al. (2012), who emphasized that internships foster critical professional relationships and networking opportunities, which are essential for career growth. The relatively low standard deviation indicates

that the majority of students share this perception, suggesting that improved interpersonal skills are universally recognized as a significant benefit of industrial training.

The finding that industrial training provides broad work experiences (mean = 4.21, SD = 0.91) echoes the work of Obasi (2015), who identified that practical exposure enhances students' adaptability in various professional settings. Such experiences broaden students' understanding of workplace dynamics, making them more competitive in the job market. The slight variation in responses, as indicated by the standard deviation, may reflect individual differences in students' prior exposure to industrial settings.

Furthermore, students acknowledged that industrial training helps them develop technical skills and interests in accounting (mean = 4.15 and 4.18, respectively). This finding is supported by Matusovich et al. (2019), who found that practical training stimulates interest and competency in professional fields. By engaging directly in accounting practices, students are likely to gain not only technical expertise but also a deeper passion for their field, contributing to their overall professional development.

Students' support for the implementation of a compulsory industrial training programme (mean = 4.02, SD = 0.96) reflects an overall consensus on its necessity, albeit with some variability in opinion. This suggests that while the majority agree on its importance, there may be concerns regarding the logistics of its implementation. As Maseka (2020) notes, challenges such as resource allocation and industry collaboration can impede successful implementation, which may explain the slight variation in responses.

From the qualitative data, lecturers and heads of departments echoed these sentiments, emphasizing that industrial training is crucial for closing the gap between academia and industry. The practical implications of this finding are significant, as it suggests that a well-structured industrial training programme could enhance the employability of graduates. However, as noted by some respondents, the challenge lies in integrating the programme into the curriculum, particularly regarding assessment methods and partnerships with industry.

In summary, the findings from this study strongly indicate that industrial training is not only relevant but also necessary for the holistic development of B.Ed. Accounting students. It enhances human relations, provides broad work experience, fosters technical skills, and allows students to apply theoretical knowledge in practical settings. The consensus among both students and lecturers suggests that implementing a compulsory industrial training programme would be highly beneficial. However, attention must be given to potential challenges, particularly in terms of implementation logistics and industry collaboration, to ensure its success.

Research Question 2: What are the possible measures that can be adopted for the effective incorporation of industrial training in terms of collaboration with industries and placement?

Presentation of quantitative data

To explore the second goal of the research, Section C of the questionnaire was designed to gather students' perspectives on how industrial training can be effectively implemented, particularly focusing on collaboration with industries and placement opportunities. Students were asked to evaluate a

series of statements by rating them on a scale. Responses falling within the mean range of 3.5 to 5.0 indicated agreement, suggesting that students viewed industry collaboration as a crucial component of industrial training and favored the placement options provided. On the other hand, responses with a mean range of 1.0 to 2.4 reflected disagreement, implying that these students either did not see the value in collaborating with industries or were not in favor of the placement options offered. The findings from the participants' responses are summarized in Table 5.

Table 5: Students' Perceptions of Collaboration with Industries

Statement	Mean	Std. Deviation
Departmental collaboration with industries is needed for the easy placement of students	4.15	0.90
A list of industries should be provided by the department for students to make selections from	4.15	1.05
I prefer to look for my placement	3.55	1.08
I prefer to be placed by my department	3.45	1.10
I prefer to be placed by an Industrial Liason Office	3.51	1.01
I prefer to be placed by my family	3.03	1.30
I prefer to be placed by friends	2.77	1.31
Mean of Means/Average Standard Deviation	3.52	1.11

Source: Field Survey (2022).

Table 5 presents students' views on possible ways to improve the implementation of industrial training, particularly in terms of collaboration with industries and placement. Students strongly agreed that departmental

collaboration with industries is necessary for easier placement, as well as the need for the department to provide a list of industries for students to choose from, with a mean of 4.15 and a standard deviation (SD) of 0.90, indicating strong agreement and a relatively low variation in responses. The same mean of 4.15 and an SD of 1.05 also showed that students felt strongly about having a list of industries to select from, with slightly more variation in responses compared to the previous statement.

Students expressed agreement with the idea of looking for their own placement (mean = 3.55, SD = 1.08), preferring to be placed by an Industrial Liaison Office (mean = 3.51, SD = 1.01), and preferring placement by their department (mean = 3.45, SD = 1.10). The variation in responses, indicated by the SD values, was slightly higher in these areas, suggesting some differences in students' preferences.

However, students disagreed with the statement that they preferred to be placed by friends, as shown by a mean of 2.77 and an SD of 1.31. The higher SD here indicates a wider spread in responses, with more variability in how students felt about being placed through personal connections.

Presentation of qualitative data

In addressing the research questions, the second interview question prompted participants to express their thoughts on the importance of collaboration with industries and the availability of placement opportunities for students. Nearly all respondents, except for two, emphasized that a strong partnership between the academic department and industries is vital for the successful execution of industrial training.

Several key reasons for this collaboration emerged, forming distinct subthemes. Respondents highlighted that such partnerships would ensure the development of a well-structured industrial training program, provide the department with insights into where students could undertake their training, and help the department align its curriculum with the specific needs of industries. Additionally, they noted that collaboration would enhance students' chances of being accepted into industries for practical training.

When asked about how this collaboration could be effectively established, respondents suggested several approaches. These included identifying suitable industries and communicating the significance of industrial training to them, as well as distributing introductory letters to students. These letters would be presented to organizations in their chosen fields, with students then providing feedback to the department for further follow-up. Below are examples of responses that illustrate the perceived need for collaboration and practical ways to achieve it:

> *"Of course, there should be some form of academic industry synergy, this will help achieve a proper industrial training programme. To get it done, the academia should identify potential industries and move from their comfort zone to meet them, packaging our message so that they can buy into the idea" [L01].*

> *"Definitely, collaboration will be needed because if students are going to go out, as a department we should know where students are going, hence a liaison officer will be needed in the department to locate possible industries where students prefer to undertake the training" [L02].*

> *"Of course yes, there is a strong need for university and industry to collaborate. This will enable the department to understand*

what the industry needs are and prepare students to be placed in those industries. This could be done where the department reaches out to available industries and presents them with the benefits of the training to them" [L04].

"Yeah I think collaboration is going to be a necessary thing, if we are going to make industrial training effective then the department should liaise with the various industries that can accommodate our students so that we can plan something out" [L08].

"A department-industry collaboration will be needed but we may not be able to get all the stakeholders involved so an open introductory letter could be given to students to present to organisations in their field of interest then bring feedback to the department to follow up" [L09].

"We can collaborate with industries so that it facilitates students' acceptance into the industries for practice rather than some will have difficulty getting certain places to learn" [L10].

When discussing placement options for industrial training, two main approaches emerged: placements arranged by the department and self-placement by students. Among the lecturers, five expressed the view that students should take the initiative to secure their own placements, while three argued that the department should take the lead in assigning students to various institutions. The remaining lecturers suggested a combined approach, believing that a mix of both methods would be most effective. They proposed that this could be achieved by providing students with a database of potential industries or by issuing industrial training letters to students for them to present to organizations. Below

are some of the lecturers' responses regarding their perspectives on placement options:

> *"Everything should start from the department. The department should provide a database of the potential industries already identified from the collaboration and group them into areas where our students are being trained for students to select their preferred industries for the training" [L01].*
>
> *"Elsewhere in polytechnics, liaison officers ask students to present industries they prefer to undertake the training. However, the department could also allocate students to some of the industries they have located and have collaborations with. So I think a blend of the two methods will be preferable" [L03].*
>
> *"The department can place students into available industries per the students' choice and students can also present institutions to the department where they prefer their placement" [L04].*
>
> *"I prefer the students looking for their industries so that the department will facilitate the process but if for one or two reasons a student is not getting a place then the department can come in" [L08].*
>
> *"The student and department partnership will be needed for good placement because students will locate industries they will be comfortable considering their accessibility" [L09].*
>
> *"Looking at the student body it will not be easy for the department to place each student but letters can be given out to students for them to look for the places then the department gives them the support to get such places" [L11].*

Discussion

The findings of the study on the possible measures for effectively incorporating industrial training, particularly through collaboration with industries and placement options, provided valuable insights into how these processes could be implemented. The quantitative and qualitative data revealed that students and lecturers both recognize the need for a collaborative effort between academic institutions and industries for a more efficient industrial training program.

Firstly, the students' high level of agreement (Mean = 4.15, SD = 0.90) with the need for departmental collaboration with industries for easier placement underscores the importance of such partnerships in facilitating practical training. This aligns with previous studies such as those by Datuk and Melintang (2019), Effah (2019), and Asfiyanur et al. (2018), which emphasize the role of academia-industry collaborations in enhancing student placement outcomes. These collaborations allow departments to better understand industry demands, ensuring that students are well-prepared to meet those needs. Additionally, students benefit from this partnership by gaining easier access to placements and avoiding the common challenges of finding suitable internship opportunities independently.

The implications of these findings are significant. If academic departments proactively engage with industries, they can ensure a more seamless transition for students from the classroom to the workplace. This collaboration not only strengthens the relationship between universities and industries but also enhances the relevance of the educational curriculum, making it more aligned with real-world demands. Such industry-academia

partnerships could also lead to long-term collaborations, including research partnerships, which could further benefit both students and faculty.

Secondly, the study highlighted students' preferences regarding placement options. The findings suggest that students appreciate a mixed approach, preferring to find placements on their own (Mean = 3.55, SD = 1.08), while also valuing support from their departments or an Industrial Liaison Office (Mean = 3.45, SD = 1.10; Mean = 3.51, SD = 1.01). These preferences suggest that students seek autonomy but also recognize the benefits of institutional support in securing placements. The notion that students prefer the department to provide a list of industries (Mean = 4.15, SD = 1.05) confirms that they value structure and guidance in the placement process, even as they strive for some independence.

This finding implies that institutions should adopt a more flexible approach to placement, offering students a combination of self-placement and department-guided placement options. Such a model would empower students to explore industries they are genuinely interested in while ensuring they receive the necessary institutional backing to secure relevant positions. The blend of these two approaches could also relieve some of the pressure on departments, as students who are unable to find placements independently could be assisted by the institution. This idea resonates with the conclusions of Ayarkwa et al. (2011) and Spio-Kwofie (2016), who noted the challenges students face when they lack departmental support in securing placements.

Additionally, the study revealed that students were less inclined to rely on family and friends for placements (Mean = 3.03, SD = 1.30; Mean = 2.77, SD = 1.31). This suggests that students value professional support systems over

informal networks when it comes to securing relevant industrial training opportunities. This finding could guide institutions in focusing their efforts on formalizing placement processes rather than relying on students' personal connections.

The qualitative data reinforced these findings, with lecturers strongly supporting the idea of collaboration between departments and industries. Many lecturers emphasized the need for liaison officers within departments to help students secure placements, reflecting a shared understanding of the challenges students face in this regard. This perspective aligns with the theoretical framework that supports the integration of industrial training into educational programs as a bridge between theory and practice.

In conclusion, the findings from both quantitative and qualitative data emphasize the need for strong collaborations between academic institutions and industries to ensure successful industrial training. Students prefer a blend of self-placement and institutional support, indicating the importance of flexibility in the placement process. These findings highlight practical measures that can be adopted to improve the incorporation of industrial training into the curriculum, particularly through more structured partnerships between universities and industries. Future implementations should focus on building strong departmental-industry relationships, supporting students' autonomy in the placement process, and ensuring institutional backing for those who need it. By adopting these measures, universities can create a more efficient and supportive system that benefits both students and the industries they will eventually serve.

Research Question 3: What are the possible measures that can be adopted for the effective incorporation of industrial training in terms of time and duration?

Presentation of quantitative data

Students were asked to provide their thoughts on potential approaches to delivering industrial training in Section D of the survey, with a particular emphasis on time and duration. The third goal of the study was to be addressed in this part. Participants were asked to score a variety of claims, and their answers were divided into two groups: those who agreed (mean range: 3.5–5.0) and those who disagreed (mean range: 1.0–2.4). The suggested time and duration were deemed appropriate for their training needs by those who agreed with the assertions, but they were viewed less favorably by those who disagreed. Table 6 provides a summary of the results from this section.

Table 6: Students' perceptions on time and duration for industrial training

Statement	Mean	Std. Dev.
Industrial Training should be undertaken during vacations from level 100 through to level 400	3.65	1.25
Industrial Training should be undertaken during level 400 first semester vacation	3.21	1.42
Industrial Training should be undertaken during level 300 second semester vacation	3.56	1.20
Industrial Training should last for a period of one to three months	4.07	1.02
Industrial Training should last for a period of three to six months	3.26	1.19

Industrial Training should last for a period of six months to one year	3.04	1.31
Mean of Means/Average Standard Deviation	3.46	1.23

Source: Field Survey (2022).

Students' opinions regarding the ideal time and length of industrial training are shown in Table 6. Students agreed with each of the three statements regarding the timing of industrial training: that it should take place during the extended breaks between level 100 and level 400 (mean = 3.65, SD = 1.25), during the gap at level 300 in the second semester (mean = 3.56, SD = 1.20), and during the vacation at level 400 in the first semester (mean = 3.40, SD = 1.42). The comparatively high standard deviations in these answers indicate that there is some variance in the preferences of the students, with a greater range of views regarding the appropriate timing of industrial training, particularly at level 400.

With a relatively low standard deviation, students' agreement on the length of industrial training was stronger. They agreed that the training should run between one and three months (mean = 4.07, SD = 1.02). The idea that industrial training should last between three and six months (mean = 3.26, SD = 1.19), as well as between six months and a year (mean = 3.04, SD = 1.31), was met with no response from the students. These replies' higher standard deviations indicate greater opinion variability, with some students favoring shorter industrial training periods while others are thinking about longer ones.

Presentation of qualitative data

The timing and duration of industrial training play a crucial role in its effective implementation for students. In the third interview question, lecturers

were asked to share their perspectives on the most suitable time and length for such training. All respondents agreed that industrial training should last a minimum of two to three months to be meaningful. However, the majority emphasized that the ideal period for this training would be during the long vacation at Level 300. Some lecturers also suggested that incorporating the Level 200 long vacation could be beneficial. Below are the detailed responses provided by the lecturers:

> *"The academic calendar is already packaged. The only space that could be created for them is during the long vacations. Preferably level 300 long vacation should be okay. Two to three months out of the long vacation will be okay to prepare them enough to gain the kind of experience we are looking for" [L01].*
>
> *"This our programme is a busy one and we don't have time so unless we utilise the long vacations maybe from 3rd year to 4th year. The long vacation is normally two months so I think all the two months for the training will be good for effective training. It should start from level 200 and end at level 300. So for me both long vacations in levels 200 and 300. The entire vacation which I think is 3 months should be used for the training" [L02].*
>
> *"I think during the long semester break so that when they come back to school they can incorporate it in school. It should be undertaken in second-year and third-year long vacations. At least the student should get one full month on the field" [L03].*
>
> *"Immediately the student gets a long vacation, Industrial Training should be undertaken preferably for two long vacations minimum that's okay" [L05].*
>
> *"I think we have to look at the long vacations probably level 300 throughout the vacation period" [L07].*

> *"The long vacations will be better because that is the time students will have much time for training. Could have been best for both level 200 and 300 long vacations but looking at the cost aspect of it we can manage level 300 long vacation" [L09].*

Discussion

Time and Duration for Industrial Training

The objective of this section was to examine the appropriate time and duration for undertaking industrial training within the B.Ed. Accounting programme. The findings of this study indicate that both students and lecturers agreed on the importance of carefully selecting the period during which industrial training should be conducted. This consensus emphasizes the need for a longer and more structured time frame for students to gain practical experience, aligning with the research by Phang et al. (2014) and Nauman & Hussain (2018), who highlighted that longer periods of industrial training provide students with ample time to develop key skills and enhance their employability prospects.

Quantitative data showed that students preferred industrial training to be conducted during long vacations, spanning from level 100 to 400 (m=3.65, SD=1.25), with specific emphasis on the level 300 second-semester vacation (m=3.56, SD=1.20). This suggests that students see the long vacations as an ideal period when they are free from academic obligations, allowing them to fully engage in practical training. However, lecturers highlighted that students may not be adequately prepared in level 100 to benefit from the training, as they would not yet have grasped the core concepts in their field of study. Similarly, by level 400, students may be preoccupied with completing project work and other commitments, limiting their availability for industrial training. This aligns

with literature suggesting that industrial training is most beneficial after the third year of study (Matamande et al., 2012; Jamaluddin et al., 2013; Esia-Donkoh et al., 2015).

Lecturers further supported the idea that the level 200 and 300 long vacations would be the most suitable time for students to undertake industrial training. These findings suggest that for industrial training to be effective, it should occur when students have built a foundational understanding of their academic discipline (level 200) but are still early enough in their studies (level 300) to engage in practical experiences without major disruptions to their final year activities. This confirms earlier studies by Antwi, Duncan, & Tsegah (2019) and Maseka (2020), which stressed that the timing of industrial training is crucial for achieving its intended outcomes.

Regarding the duration of industrial training, both students and lecturers generally agreed that a period of one to three months was the most appropriate (m=4.07, SD=1.02). This aligns with the work of Esia-Donkoh et al. (2015) and Maseka (2020), who found that a two to three-month duration strikes a balance between providing students with enough time to develop practical skills while not significantly disrupting their academic studies. Shorter durations may not allow sufficient time for students to fully integrate into the work environment and complete meaningful tasks, whereas longer periods, such as six months to one year (m=3.04, SD=1.31), may conflict with the structured academic calendar of the B.Ed. Accounting programme.

The finding that students disagreed with longer durations, despite evidence that longer industrial training periods tend to enhance learning outcomes (Phang et al., 2014), can be attributed to the constraints of the

academic calendar. With long vacations being limited to about three months, students would likely be unable to participate in extended internships without compromising their academic progression. This reflects the practical challenges of aligning industrial training with the academic curriculum, a common issue in many educational programmes (Nduro et al., 2015).

The findings from both quantitative and qualitative data reveal a shared understanding of the importance of industrial training within the educational framework. The preference for a one-to-three-month duration highlights the need for academic institutions to carefully structure their industrial training programmes in such a way that students can gain practical experience without conflicting with their studies. Universities may need to explore options for better synchronizing academic timetables with industry schedules, ensuring that students have adequate opportunities to engage in meaningful industrial placements.

Lecturers' suggestions for focusing industrial training during the level 200 and 300 long vacations have practical implications. Academic institutions should consider integrating industrial training into these specific periods, while also providing administrative support in the form of liaison offices to assist students with placement. Such collaboration can ensure that students receive the necessary exposure to industry while maintaining a structured academic experience.

In conclusion, both students and lecturers emphasized the need for industrial training to be undertaken during long vacations, with level 200 and 300 being the most appropriate years for participation. A duration of one to three months was seen as optimal, providing enough time for practical skill

development while aligning with the academic calendar. However, the results also highlighted the challenges of balancing longer industrial training periods with the demands of academic schedules, suggesting that universities need to work closely with industries to ensure effective placement opportunities..

Research Question 4: What are the appropriate modes of assessing students in industrial training programme?

Presentation of quantitative data

Students were asked to share their opinions on the most suitable methods for assessing Industrial Training, as part of addressing the fourth research question. They were required to rate a series of statements, with responses categorized as either agreement (mean range: 3.5–5.0) or disagreement (mean range: 1.0–2.4). Those who agreed with the statements found the proposed assessment methods acceptable, while those who disagreed did not support them. The results gathered from the students are summarized in Table 7.

Table 7: Students' Perceptions of Modes of Assessing Industrial Training

Statement	Mean	Std. Deviation
Industrial Training should be scored and graded	3.18	1.32
Industrial Training should be non-scoring and zero graded	3.37	1.33
Assessment for Industrial Training should be done through Oral presentations	3.19	1.07
Assessment for Industrial Training should be done through Reports by supervisors	3.72	1.01
Assessment for Industrial Training should be done through Logbooks	3.35	1.05

Assessment for Industrial Training should be done through Reports by visiting lecturers	3.64	1.11
Assessment for Industrial Training should be done through Written examinations	2.94	1.42
Mean of Means/Average Standard Deviation	3.34	1.19

Source: Field Survey (2022).

Students' opinions regarding their preferred methods of evaluating industrial training are shown in Table 7. With values of 3.18 and 3.37 and standard deviations of 1.32 and 1.33, respectively, students were undecided about whether industrial training should be scored and evaluated or non-scoring and zero-graded.

Regarding the preferred modes of assessment, students showed a preference for reports by their immediate supervisors (mean = 3.72, SD = 1.01) and reports by visiting lecturers (mean = 3.72, SD = 1.01), both having the same mean score and relatively low standard deviations, suggesting a general agreement on these methods. Students were neutral on oral presentations (mean = 3.19, SD = 3.07), logbooks (mean = 3.35, SD = 1.05), and written examinations (mean = 2.94, SD = 1.42). The higher standard deviations for oral presentations and written examinations indicate a wider spread in opinions about these assessment methods, with some students favoring them more than others.

Presentation of qualitative data

Lecturers were asked to discuss their thoughts on the best ways to evaluate an industrial training program in the interview's last section. The majority of respondents agreed when asked if the training should be graded and scored, recommending a number of assessment strategies. These comprised assessments based on oral presentations, student self-reports, feedback from visiting lecturers, and reports from direct supervisors. Additionally, they pointed out that the curriculum would only require two to three credit hours.

However, a small number of respondents disagreed with the idea of scoring and grading the training. They maintained that field supervisors' reports alone would be sufficient for program evaluation and would even be a prerequisite for students to complete their coursework. Below is a summary of the speakers' thorough answers.

Scored and graded

> *"Looking at the calibre of students we have, if it is non-scoring then everybody will do it haphazardly but once they know that it is scoring they will attach a lot of importance to it else it. There should be an assessment rubric by the department where supervisors in the industries can use as well as department supervisors follow-up. I don't think it should take much of the credit hours, maybe three credit hours will be okay" [L02].*

> *"If we do not score and assess it students will not take it serious, so an assessment report from a supervisor should be presented. Also like the off-campus teaching practice, a standard for assessing students should be provided so that lecturers will visit students and assess them based on the standards. We can give it two or three credit hours for students to attach some importance" [L06].*

"Industrial Training is detrimental to the life of students and hence should form part of the student's academic records. Lecturers could visit students to assess them on what they are doing there based on observations in addition to attestations by their supervisors at the workplace. 1 or 2 credit hours could be assigned to put some seriousness in the students" [L08].

"Assessing it is a great challenge, in the best way supervisors from the department should move to the industries to supervise what the students are doing but that will involve much cost so I think a report from the immediate boss of where the trainee works will be appropriate. Oral presentation may also be another way for assessing whether students were able to learn or not. It should be graded so that students will take it serious otherwise students will not even go and do it. Probably 2 credits will be okay because of the subjective nature of Industrial training" [L07].

"Grading it will put fear in students to attach some seriousness in doing it because students seem to focus much on getting grades. However, the need for engaging in the training should be thoroughly explained to students. *A two credit hour should be okay for it and could be based on reports from industry supervisors and visiting lecturers" [L10].*

Non-scoring

"Lecturers from the department should visit students for monitoring and evaluation. Student self-report from the field and also general assessment of students in the form of oral presentations when they return. Not necessarily grading and scored, but it should be made compulsory as a requirement for students to undertake before they graduate. Oral presentations will help in identifying students' challenges from the field and modify the programme rather than just focusing on scoring students" [L03].

"For the methods it is going to be difficult, visiting students will be difficult. However, if the benefits of engaging in the training is clearly explained to the students nobody will even force them to do it. For the grading I don't think so, the best we can do is they bring a report from the field to indicate that they have done it" [L05].

"The appropriate method is to develop competency models that will spell out what qualities students should display as they are at the workplaces and based on these models a report will be given by their work supervisors because they should be able to tell whether students are coping with work or not. I don't think it should be graded but it should be a requirement in completing your education. Everything is not about grade, the right motivation, the right monitoring to make sure the students get through the system its fine" [L11].

Discussion

The final research objective sought to explore appropriate modes for assessing industrial training for B.Ed. Accounting students, and the results revealed both students' and lecturers' perspectives on the matter. The findings offer insights into the preferred methods of assessment and the divergence in opinion on whether industrial training should be scored and graded.

Regarding the issue of scoring and grading, students were generally neutral (mean = 3.37, SD = 1.33), reflecting some ambiguity in their preference for whether industrial training should be formally assessed with scores. Lecturers, however, emphasized the importance of grading the training, arguing that students might not take it seriously if it was ungraded. This viewpoint aligns with earlier research by Matamande et al. (2012), Renganathan et al. (2012), and Maseka (2020), which supports the idea that grading encourages students

to be more committed and to value the learning experience. From a theoretical standpoint, this makes sense because students tend to respond better to tangible rewards or penalties, especially in educational systems where grades serve as a key motivator. Grading industrial training would likely increase students' engagement, ensuring they treat it with the same seriousness as other academic work. This could enhance the practical experience that industrial training is meant to provide, preparing them for future careers.

In terms of the preferred methods of assessment, both students and lecturers favored the use of reports from work supervisors (mean = 3.72, SD = 1.01) and visiting lecturers (mean = 3.64, SD = 1.11). This consensus underscores the value placed on first-hand evaluations by individuals directly involved in overseeing the students during their training. The use of these reports is consistent with other research, such as Jamaluddin et al. (2013) and Esia-Donkoh et al. (2015), which argue that supervisor reports offer a direct and practical means of assessing student performance in real-world settings. These assessments provide insight into how well students are applying theoretical knowledge in a practical context, which is essential for evaluating the effectiveness of the industrial training program.

Students were also somewhat favorable toward the use of logbooks as an assessment tool (mean = 3.35, SD = 1.05). Logbooks are commonly used in industrial training programs to document students' daily tasks, challenges, and reflections. This method offers a continuous, reflective assessment that helps track progress over time. However, the relatively neutral stance toward logbooks suggests that while students acknowledge their value, they may not view them as sufficient on their own. The literature supports the inclusion of

logbooks as a complementary tool rather than a standalone method, as they promote self-reflection but need to be corroborated by other forms of assessment (Abdul, 2020; UiTM, 2020).

Interestingly, students expressed neutral views on oral presentations (mean = 3.19, SD = 1.07) and were less inclined to support written examinations (mean = 2.94, SD = 1.42) as modes of assessment. This suggests that students may not see these traditional academic methods as well-suited for evaluating practical experiences. Oral presentations, although neutral in students' responses, were viewed more favorably by lecturers, who indicated that they provide an opportunity to assess students' understanding of their field experiences and challenges. Oral presentations could serve as a bridge between practical experience and academic evaluation, allowing students to articulate the skills and knowledge they acquired during training. This is echoed by scholars such as Spio-Kwofie (2016) and Maseka (2020), who recommend incorporating such assessments to gauge students' communication skills and ability to synthesize their learning experiences.

The divergence in preferences between students and lecturers, particularly regarding oral presentations and grading, highlights a need for further dialogue in designing an assessment system that balances practicality with academic rigor. Grading and oral presentations could be used alongside reports and logbooks to create a comprehensive assessment framework that addresses both the theoretical and practical aspects of the training.

While students were neutral about grading the training, lecturers emphasized the importance of scoring to ensure students take the program seriously. This finding aligns with studies suggesting that grading motivates

students to engage more fully in the training process. Both students and lecturers favored assessment through reports by work supervisors and visiting lecturers, suggesting these are the most practical methods for evaluating performance during industrial training. Logbooks were also acknowledged as a useful tool but seen as complementary rather than a primary assessment method. Students were neutral or opposed to more traditional academic assessments like oral presentations and written exams, but lecturers supported oral presentations as a way to assess students' ability to reflect on their field experiences. The findings suggest that a balanced assessment system incorporating reports, logbooks, oral presentations, and possibly grading would be effective in evaluating industrial training. This comprehensive approach would not only ensure students are held accountable but also provide them with the opportunity to reflect on and communicate their learning experiences.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter marks the conclusion of the entire study. It summarized the methodologies used for data collection, the procedures followed in gathering and analyzing the data, and the results generated to address the key questions regarding the integration of industrial training into the university accounting education curriculum. Additionally, it presented conclusions drawn from the study's findings and concluded by offering relevant recommendations and suggestions for future research.

Summary of the Study

This study sought to explore in detail the perspectives of both lecturers and students on how industrial training could be effectively integrated into the B.Ed Accounting curriculum at the University of Cape Coast. The focus was on understanding the relevance of industrial training, the importance of collaboration between the department and industries, the ideal timing and duration for such training, and the most suitable methods for assessing students during the program. The research was conducted specifically with B.Ed Accounting students at the University of Cape Coast. To achieve its objectives, the study was guided by the following research questions:

1. What are the perceptions of students and lecturers regarding the inclusion of industrial training in the university accounting curriculum?
2. What strategies can be implemented to ensure effective integration of industrial training, particularly in terms of collaboration with industries and student placement?

3. What measures can be adopted to effectively incorporate industrial training in terms of timing and duration?
4. What are the most appropriate methods for assessing students during the industrial training program?

The review of existing literature highlighted the significance of industrial training, emphasizing its positive impact on students, academic institutions, and organizations. It also underscored the importance of strong partnerships between academic institutions and industries for the success of such programs. Additionally, the literature suggested that longer durations of industrial training tend to yield more effective outcomes. In terms of assessment, methods such as supervisor reports, logbooks, visiting lecturer evaluations, and oral presentations were identified as common practices.

The study adopted a convergent parallel mixed-methods design, utilizing both questionnaires and interviews as primary data collection tools. Sampling techniques included convenience sampling, purposive sampling, and the census method. Purposive sampling was used to select B.Ed Accounting students and lecturers teaching in the program, while the census method ensured the inclusion of all B.Ed Accounting students. Convenience sampling was applied to select individual lecturers. In total, 111 students and 11 lecturers participated in the study. Data from the questionnaires were analyzed using SPSS, with descriptive statistics such as means, standard deviations, frequencies, and percentages used to interpret the results. Interview data were recorded, transcribed, and analyzed thematically to extract key insights.

Key Findings

Key findings that emerged from the study are presented below in line with the research questions:

1. Students and lecturers perceive Industrial Training to be very important and therefore should be incorporated into the B.Ed. Accounting curriculum.
2. The possible measures for effective incorporation of industrial training programme are departmental-industry collaboration and placement.
3. The study found that in order to perform an industrial training program effectively, it should be implemented over a period of two to three months during an extended vacation.
4. Oral presentations, students report, lecturers report, and reports from direct supervisors are the proper ways to evaluate industrial training programs.

Conclusions

Based on the key findings, the study presents the following conclusions.

According to research on how instructors and students view the value of industrial training, pupils believe it is significant. Due to the many benefits of industrial training, both students and instructors stressed the necessity of including it in the B.Ed. Accounting program. Therefore, in order to integrate industry training into the university curriculum, these advantages must be taken into account.

The findings revealed that collaboration between the department and industries is essential for the success of industrial training. Additionally, a combination of self-placement by students and placement facilitated by the

department was identified as a practical approach to ensure effective training. Based on these results, it is concluded that the role of university-department collaboration in industrial training cannot be underestimated. Furthermore, a joint effort between the department and students is necessary to successfully place students in various industries for their training. It is therefore believed that if universities will achieve a strong collaboration with industries, then they need to create a good relationship with the industries. By this, it will be easy for students to get a lot of industries to undertake industrial training.

The study also explored the ideal timing and length of industrial training, revealing that most students favored longer vacation periods, typically ranging from one to three months. This preference aligned with the views of lecturers, who also believed that extended breaks were the most suitable time for such training. This suggests that for industrial training to be truly impactful, it should be conducted over a longer duration, allowing students to gain deeper insights and practical experience. The consensus highlights the importance of dedicating sufficient time to ensure the effectiveness of the training program. As per the academic schedules of students, it will be appropriate that Industrial Training be taken during the long semester break. This will prevent industrial training to be taken at shorter periods to render it ineffective.

Lastly, the findings on assessment methods revealed that while students favored being evaluated through reports submitted by lecturers, feedback from their immediate supervisors, and logbooks, they also expressed a strong preference for industrial training to be graded. This stance, however, contrasts with the perspective of lecturers, who believed that grading should be incorporated alongside additional assessment methods such as student self-

reports and oral presentations. Based on these insights, it can be concluded that to enhance the effectiveness of industrial training and ensure students take it seriously, the program should include a grading system. Assessment could be carried out using a combination of methods, including reports from visiting lecturers, evaluations from immediate supervisors, logbooks or student self-reports, and oral presentations. This multifaceted approach would provide a comprehensive evaluation of students' performance and learning outcomes. If students become aware that industrial training is zero-graded, there is a probability that they will attach little importance to it. It is, therefore, necessary to assign a grade to the training as well as ensure strict supervision of the modes of assessing it.

Recommendations

The following recommendations were made in light of the findings and conclusions of the study:

1. The curriculum should be revised to include industrial training as a compulsory component for all B.Ed. Accounting students. This is crucial because the study revealed that industrial training is a significant factor in enhancing students' practical skills, career readiness, and bridging the gap between theoretical knowledge and real-world application. By embedding it as a mandatory part of the curriculum, students will be guaranteed the opportunity to develop essential skills that are integral to their academic and professional growth.
2. Given the positive impact of industrial training on B.Ed. Accounting students, it is recommended that the curriculum of other academic programme at the University of Cape Coast also incorporate industrial

training. Expanding this practice across various disciplines will ensure that all students gain practical experience relevant to their fields, which will enhance their employability and preparedness for their careers. The curriculum should be adjusted to reflect the importance of practical exposure in the academic journey, fostering well-rounded graduates across different departments.

3. The curriculum should include a dedicated module or orientation session that outlines the benefits of engaging in industrial training. The study highlighted that many students are unaware of the value of industrial training beyond grades. By embedding this module within the curriculum, students will gain a deeper understanding of how industrial training enhances their skill set, boosts employability, and prepares them for the workforce. This will help increase student motivation and encourage greater participation in the programme.
4. The curriculum should include clearly defined and standardized assessment criteria for industrial training to ensure fairness and transparency in the evaluation process. As the study indicated, students expressed concerns about inconsistent grading, and some felt that without grading, the programme would be taken less seriously. By incorporating clear assessment rubrics within the curriculum, all students will have a clear understanding of the expectations and how they will be evaluated. This will not only motivate students but also ensure that assessments are objective and consistent across all departments.

Contribution to the Study

The researcher created a model based on the study's conclusions and discussions to operate as a useful manual for the University of Cape Coast's Department of Business and Social Sciences Education as it implements a required industrial training program. This guide was designed in alignment with the study's outcomes and can be adapted or modified according to the department's specific needs and structures to ensure the successful execution of the Industrial Training Programme. The model aims to provide a flexible framework that can be tailored to enhance the program's effectiveness and alignment with institutional goals.

UNIVERSITY OF CAPE COAST

PROPOSED INDUSTRIAL TRAINING GUIDE

PROPOSED GUIDE FOR INCORPORATING INDUSTRIAL TRAINING INTO THE B.Ed. ACCOUNTING CURRICULUM

Introduction

The University of Cape Coast's Department of Business and Social Sciences Education's B.Ed. Accounting students are the target audience for this proposed guide. However, other colleges, faculties, departments, instructors, students, and organizations who participate in Industrial Training programs can also modify and use it.

The B.Ed. Accounting curriculum is designed to produce graduates who are well-equipped to contribute meaningfully to the teaching profession after completing their studies. To achieve this, it is essential to provide students with opportunities to gain hands-on experience in real-world settings. Such practical exposure allows them to understand industry dynamics, broaden their knowledge, and enhance their skills in their chosen field.

According to this guide, Industrial Training is defined as a field-based, practical training experience that prepares students for the responsibilities and tasks they will encounter after graduating. It aims to bridge the gap between theoretical

knowledge and practical application, ensuring that students are well-prepared to meet the demands of their future careers. This guide serves as a framework to support the effective implementation of Industrial Training, fostering a seamless transition from academia to the professional world.

Objectives

The purpose of Industrial Training is to allow students to apply classroom knowledge in real-world settings, equipping them with job-ready skills. Key objectives include:

1. Linking schools and industries.
2. Providing hands-on experience.
3. Deepening understanding of classroom concepts.
4. Encouraging practical application of theory.
5. Offering insights into industry operations.
6. Preparing students to become effective teachers with real-world examples.

This training ensures graduates are both academically and practically prepared for their careers.

Scope of Industrial Training

The industrial training program is mandatory for all B.Ed. Accounting students in the Department of Business and Social Sciences at the University of Cape Coast.

Industrial training schedule

1. Lecturers and counselors will orient students on the importance of industrial training, required formalities, and the need to take it seriously.
2. The department will partner with industries to secure training opportunities for students.
3. A list of approved industries will be provided to students for placement purposes.
4. Students can seek their own placements using introductory letters from the department. Those unable to find placements will be assigned by the department.
5. Students must inform the department once they secure a placement for official approval.
6. Students will be supervised and evaluated during their training.
7. Assessment will be conducted using a standardized Industrial Training Assessment Form.
8. The final score and grade will be recorded as part of the student's examination results.
9. The grade will also appear on the student's academic transcript.
10. Students need to present a structured training report to the Department Head, which will be scored using a predefined assessment criteria.

Time and Duration for Industrial Training

The two-month Industrial Training will occur during the second-semester break in the 300-level academic year

Assessment of industrial training

1. The training will account for 2 credit hours and will contribute to the student's overall Cumulative Grade Point Average (CGPA).
2. The evaluation for industrial training will be divided into the following components:
   a. Supervisor's report (from immediate supervisors) – 50%
   b. Student's self-report or logbook – 10%
   c. Oral presentation or interview – 40%
3. It will be necessary for students to retake the training if they miss at least 80% of it, as confirmed by their immediate supervisor.
4. Industry supervisors and departmental coordinators will work together to make sure students stay dedicated to their jobs during the attachment period.
5. Both the students' immediate supervisors and visiting lecturers will oversee the students, and at the end of the training term, each will provide the department with an independent assessment of the students.
6. A thorough report detailing the activities they engaged in during the attachment is expected of the students. The report needs to follow the rules for writing these kinds of documents.
7. Students will be required to respond to a few oral questions on their training experience after turning in their final documents to the department.
8. For the Academic Board's assessment and review, departmental coordinators will compile thorough reports on every student.

Suggestions for Further Research

Based on the findings of this study, the researcher recommends the following areas for future research:

1. This study primarily explored the perspectives of lecturers and students. Future research could expand to include all stakeholders involved in Industrial Training, such as industry managers, supervisors, and university administrators. Investigating their views on effective ways to integrate Industrial Training into Ghanaian universities would provide a more comprehensive understanding.
2. The current study was limited to B.Ed. Accounting students at the University of Cape Coast. A broader study could be conducted to include all students and lecturers within the Department of Business and Social

Sciences Education at the University of Cape Coast, as well as other universities, to gain wider insights.

3. Additional research could explore stakeholders' perceptions of whether Industrial Training is more beneficial or disadvantageous. This would help identify potential challenges and opportunities for improvement.
4. A comparative study across different departments or universities could be undertaken to assess the impact of Industrial Training on students' academic and professional development. Such a study could also evaluate whether making Industrial Training compulsory is necessary or effective.

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APPENDICES

APPENDIX A

QUESTIONNAIRE FOR B.Ed ACCOUNTING STUDENTS

UNIVERSITY OF CAPE COAST

Dear Respondent, I am an Mphil Accounting Education student of the University of Cape Coast conducting a study on the topic, **"Effective Implementation of Industrial Training (IT) into the University accounting education curriculum"**. Your candid and accurate responses to these questions will be needed to undertake this research. I assure you that responses to these questions are solely for academic purpose and will be treated as confidential.

SECTION A: Demographic Characteristics of Respondents

Please tick the appropriate boxes for items 1 - 4

1. Sex Male [ ] Female [ ]
2. Age 20-22yrs [ ] 23-25yrs [ ] 26-28yrs [ ]

SECTION B: Your perceptions on the relevance of Industrial Training

Please tick **(√)** the appropriate box to indicate your level of agreement or disagreement with each statement regarding **the need to implement industrial training into the accounting education curriculum**. **1** (Strongly Disagree); **2** (Disagree); **3** (Neutral); **4** (Agree); and **5** (Strongly Agree).

S/N	Statement	1	2	3	4	5
3.	Industrial Training presents oopportunity for students to apply theories at work place					
4.	Industrial Training helps students to develop interests in accounting through practice					
5.	Industrial Training helps students to develop technical skills (the required expertise)					
6.	Industrial Training improves students human relation skills with industry players (i.e. employers, employees and clients)					
7.	Industrial Training provide students with broad work experiences					
8.	Industrial Training provide students with a broader understanding of classroom concepts					
9.	I support the implementation of a compulsory industrial training programme in accounting education					

SECTION C: Your perceptions on departmental collaboration with Industries and Placement for industrial training

Please tick **(√)** the appropriate box to indicate your level of agreement or disagreement with each statement **regarding placement options for students and school's collaboration with industries**. **1** (Strongly Disagree); **2** (Disagree); **3** (Neutral); **4** (Agree); and **5** (Strongly

S/N	Statement	1	2	3	4	5
10.	Departmental collaboration with industries is needed for easy placement of students					
11.	A list of industries should be provided by the department for students to make selection from					
12.	I prefer to look for my own placement					
13.	I prefer to be placed by my department					
14.	I prefer to be placed by an Industrial Liason Office					
15.	I prefer to be placed by my family					
16.	I prefer to be placed by friends					

SECTION D: Your Perceptions on Time and Duration for Industrial Training

Please tick **(√)** the appropriate box to indicate your level of agreement or disagreement with each statement regarding **the appropriate time and duration for the training**. **1** (Strongly Disagree); **2** (Disagree); **3** (Neutral); **4** (Agree); and **5** (Strongly

S/N	Statement	1	2	3	4	5
	Time					
17.	Industrial Training should be undertaken during vacations from level 100 through to level 400					
18.	Industrial Training should be undertaken during level 400 first semester vacation					
19.	Industrial Training should be undertaken during level 300 second semester vacation					
	Duration					
20.	Industrial Training should last for a period of one to three months					
21.	Industrial Training should last for a period of three to six months					
22.	Industrial Training should last for a period of six months to one year					

SECTION E: Assessment modes for industrial training

Please tick **(√)** the appropriate box to indicate your level of agreement or disagreement with each statement regarding **the best methods for assessing the industrial training programme**. **1** (Strongly Disagree); **2** (Disagree); **3** (Neutral); **4** (Agree); and **5** (Strongly).

S/N	Statement	1	2	3	4	5
23.	Industrial Training should be scored and graded					
24.	Industrial Training should be non-scoring and zero graded					
25.	Assessment for Industrial Training should be done through Oral presentations					
26.	Assessment for Industrial Training should be done through Reports by supervisors					
27.	Assessment for Industrial Training should be done through Logbooks					
28.	Assessment for Industrial Training should be done through Reports by visiting lecturers					
29.	Assessment for Industrial Training should be done through Written examinations					

30. Engaged in Voluntary Industrial Training before Yes [ ] No [ ]

31. If yes, what was your reason for engaging in industrial training?

1. [ ] Haul away time
2. [ ] Family insistence
3. [ ] For practical knowledge
4. [ ] For Pleasure

32. If no, what was your reason for engaging in industrial training?

1. [ ] No such opportunity
2. [ ] Waste of time
3. [ ] Not relevant to me
4. [ ] others …….

Thank you for participating in this study.

APPENDIX B

INTERVIEW GUIDE FOR LECTURERS/HEAD OF DEPARTMENTS

UNIVERSITY OF CAPE COAST

This interview is meant to solicit your views on the appropriate ways in implementing industrial training into the university accounting curriculum. You are being assured that all information recorded during this session is confidential and solely for academic purposes. Permit me to record this interview, which should last about 20 minutes, if that is okay with you. Feel free to express your thoughts, worries, and problems, even if you believe they are unfavourable. Thank you

Interview Questions:

1. Can you please tell me how long you have been in the University system?

2. Are you aware of any compulsory industrial training programme run by the university? *(Probing: if yes, by which department? if no, what do you think are the reasons?) Is it because it is not important?*

3. Do you consider industrial training important and do you think there is the need to implement it as part of the University curriculum?

4. In implementing the programme, do you think there is the need for a collaboration between the university and the industries? *(Probing: why?* In your view, *how can we get this collaboration done?*

5. In implementing the programme, how should the placement of students into the industries be done? *(Probing: why?)*

6. At what time do you think is appropriate for students to undergo the training? *(Probing: why?)*

7. How long should the training last? *(Probing: why?)*

8. What are the appropriate methods for assessing the industrial training? *(Probing: why do you prefer these over other assessment methods? If you are to rank them, in which order will you arrange them?)*
9. Should the programme be graded? *(Probing: why?)*

10. If yes, how many credit hours should be assigned to it? *(Probing: why?)*

APPENDIX C

INTRODUCTORY LETTER

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
FACULTY OF HUMANITIES & SOCIAL SCIENCES EDUCATION
DEPARTMENT OF BUSINESS & SOCIAL SCIENCES EDUCATION

Telephone: +233209408788
Ext: (268), Direct: 35411
Telegrams & Cables: University, Cape Coast
E-mail: dbsse@ucc.edu.gh

UNIVERSITY OF CAPE COAST
PRIVATE MAIL BAG

Our Ref:
Your Ref:

15th March, 2023

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

INTRODUCTORY LETTER

Mr. Eugene Amoako Nsowah is an MPhil (Accounting Education) student of the Department of Business and Social Sciences Education, and as a requirement for the programme, he is working on the research topic: **"Effective Implementation of Industrial Training Programme into the University Accounting Curriculum."**

The study seeks to find out the appropriate ways in implementing industrial training into the accounting curriculum of the University of Cape Coast.

We would be glad if you could give him the needed assistance to undertake data collection.

In case he flouts any ethical requirement as the study may necessitate, kindly get in touch with his supervisor, Prof. M. B. Yidana, on 0542638860 or through e-mail myidana@ucc.edu.gh.

You may also get in touch with the Department on 0209408788 or through dbsse@ucc.edu.gh.

Thank you.

Yours faithfully,

DR. ERIC MENSAH
HEAD OF DEPARTMENT

APPENDIX D

ETHICAL CLEARANCE

UNIVERSITY OF CAPE COAST
INSTITUTIONAL REVIEW BOARD SECRETARIAT
TEL: 0558093143 / 0508878309
E-MAIL: irb@ucc.edu.gh
OUR REF: IRB/C3/Vol.1/0067
YOUR REF:
OMB NO: 0990-0279
IORG #: IORG0011497

13TH MARCH 2023

Mr Eugene Amoako Nsowah
Department of Business and Social Science Education
University of Cape Coast

Dear Mr Nsowah,

ETHICAL CLEARANCE – ID (UCCIRB/CES/2022/124)

The University of Cape Coast Institutional Review Board (UCCIRB) has granted Provisional Approval for the implementation of your research on **Effective Implementation of Industrial Training Programme in the University Accounting Curriculum.** This approval is valid from 13th March 2023 to 12th March 2024. You may apply for a renewal subject to the submission of all the required documents that will be prescribed by the UCCIRB.

Please note that any modification to the project must be submitted to the UCCIRB for review and approval before its implementation. You are required to submit a periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

Yours faithfully,

Kofi F. Amuquandoh

Ag. Administrator

ADMINISTRATOR
INSTITUTIONAL REVIEW BOARD
UNIVERSITY OF CAPE COAST

APPENDIX E

CONSENT LETTER FOR STUDENTS

Dear Respondent,

I will like to seek for your help in undertaking a research work on the effective ways of implementing Industrial Training into the accounting education curriculum. Your willingness to participate will not take more than 15 to 20 minutes of your time. I would be glad if you could spare me some time to answer the questionnaires.

You are assured that responses will be used solely for academic work and for no other purpose and as such only the researcher will have access to your answers.

Kindly affirm your signature to approve consent.

Thank you.

I…….. agree to participate.

APPENDIX F

CONSENT LETTER FOR LECTURERS

Dear participant,

I will like to seek for your help in undertaking a research work on the effective ways of implementing Industrial Training into the accounting education curriculum. Your willingness to participate will not take more than 15 to 20 minutes of your time. I would be glad if you could spare me some time to respond to the interview questions. Permit me to record the session for later transcription.

You are assured that responses will be used solely for academic work and for no other purpose and as such only the researcher will have access to recorded voice notes.

Kindly affirm your signature to approve consent.

Thank you.

I…….. agree to participate.