An Evaluative Study of a Blended Learning Model Implemented in a Vocational Training Organisation in Saudi Arabia

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Abstract

This study evaluated the effectiveness of a Blended Learning model implemented in vocational English training within a Saudi Arabian oil company's industrial training department. The research addressed a significant underexplored area in existing literature by examining the intersection of Blended Learning, vocational English, and educational model evaluation through qualitative methods grounded in Social Constructivism and Situated Learning theories. The study employed a qualitative case study methodology, gathering data from 36 participants including current English students, teachers, job skills trainees, and technical trainers. Data were collected through semi-structured interviews, focus group discussions, and email-based qualitative questionnaires, then analysed using reflexive thematic analysis to explore stakeholder experiences and perceptions of the Blended Learning model's effectiveness.

Five key themes unfolded from the analysis. First, the interplay between modalities revealed that face-to-face instruction excelled in developing oral communication skills and providing immediate feedback, while self-directed learning enabled personalised pacing and written skill development. However, successful integration required careful pedagogical design to prevent fragmentation and foster learner motivation. Second, vocational English skills development showed varying effectiveness across domains, with functional workplace communication and oral skills developing successfully, though gaps existed between academic vocabulary and job-specific terminology. Third, the learning environment and social dynamics proved crucial, with teachers serving as essential facilitators and peer interaction offering valuable collaborative learning opportunities. Fourth, technology integration offered significant opportunities for flexible learning and skill practice, but technical reliability issues and over-reliance on automated tools sometimes undermined authentic engagement. Finally, implementation effectiveness revealed both benefits and challenges, with stakeholders providing valuable recommendations for enhancement including greater workplace relevance and optimised technology integration. These findings showed that effective Blended Learning in

vocational contexts needs more than combining delivery modalities; it requires thoughtful pedagogical design that makes use of each component's key strengths while boosting authentic connections to workplace communication demands. The research also revealed tensions between personalisation and standardisation, individual and social learning processes, and technological convenience versus authentic skill development.

Key contributions include advancing social constructivist understanding of knowledge construction across blended modalities, extending Situated Learning theory in technological contexts, and providing practical guidance for vocational English curriculum design. The study also emphasised that authenticity in learning contexts significantly influences engagement and skill transfer, as activities closely simulating workplace demands generated superior outcomes. Additionally, the research offered practical recommendations for educational practitioners, curriculum designers, institutional leaders, and industry partners, emphasising the importance of strategic skill allocation across modalities, industry-specific content development, and sustainable evaluation approaches. This investigation affirms that effective vocational education requires careful attention to specific professional communication demands, thoughtful integration of pedagogical approaches, and ongoing industry engagement to ensure continued relevance in preparing learners for workplace success.

Keywords: Blended Learning; Educational Evaluation; Oil and Gas Industry; Qualitative Case Study; Situated Learning; Social Constructivism; Vocational English

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List of Abbreviations

AI	Artificial Intelligence
AR	Augmented Reality
CoP	Community of Practice
EFL	English as a Foreign Language
ESL	English as a Second Language
ESP	English for Specific Purposes
ERT	Emergency Remote Teaching
ICT	Information and Communication Technology
ITC	Industrial Training Centre
IVR	Immersive Virtual Reality
LMS	Learning Management System
LPP	Legitimate Peripheral Participation
MOOC	Massive Open Online Course
PCST	Process Control Systems Training
SDL	Self-Directed Learning
TAM	Technology Acceptance Model
TPACK	Technological, Pedagogical, and Content Knowledge
ZPD	Zone of Proximal Development

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Author's Declaration

I declare that this thesis is my own original work. It is not a result of joint research; it was entirely completed by me. It has not been submitted in substantially the same form for the award of a higher degree at this or any other academic institution.

I have received ethical approval for the research from the Faculty of Arts and Social Sciences and Lancaster University Management School's Research Ethics Committee. I declare that the word count of this thesis is 48,822, which is within the stated maximum of 50,000 words for this Doctoral Programme. Generative AI tools (e.g., ChatGPT) were used to support language refinement and idea development.

Chapter 1: Introduction

This chapter introduces the study's aim of evaluating a Blended Learning model implemented in a vocational training organisation in Saudi Arabia's oil and gas industry, examining how it supports English language skills development relevant to learners' vocational needs. I begin by providing background on three key areas that constitute the body of knowledge informing this research: Blended Learning as an educational approach combining face-to-face and self-directed components, vocational English as a specialised field addressing workplace communication demands, and the evaluation of educational models within their implementation contexts. The chapter then describes the specific organisational setting where the study is conducted before outlining both my personal motivation as an educator within this organisation and the study's significance for vocational education research. Following this, I present the main research question and three sub-questions that guided the investigation, exploring how face-to-face instruction, self-directed learning, and authentic workplace contexts contribute to vocational English development. The chapter concludes with an outline of the thesis structure, providing a roadmap for the six chapters that follow.

1.1 Aim

The aim of this study is to evaluate the effectiveness of the Blended Learning model implemented in the industrial training department of an oil company in Saudi Arabia, specifically in teaching vocational English skills to apprentice trainees. By focusing on oral communication skills, written communication skills, and technical vocabulary, the research seeks to understand how this model supports the development of these competencies within a vocational training context. Grounded in the theoretical framework of Situated Learning (Lave & Wenger, 1991) within a broader social constructivist perspective, the study adopts a qualitative case study approach to explore the experiences and perceptions of various stakeholders, including current and former students, English teachers, and technical skills instructors. Through thematic analysis of data collected via interviews, focus groups, and email-based qualitative

questionnaires, the study aims to provide insights into the strengths, limitations, and potential improvements of the Blended Learning model, contributing to the broader discourse on effective vocational education strategies.

The impetus for this evaluative study stems from a fundamental gap in how educational effectiveness is assessed within vocational training contexts. While the organisation routinely measures training outcomes through quantitative metrics – test scores, completion rates, and satisfaction surveys – these instruments capture only surface-level indicators of programme success. They cannot reveal the lived experiences of learners navigating between face-to-face instruction and self-directed study, nor can they illuminate how teachers adapt their pedagogical approaches within blended environments, nor whether the skills developed in academic settings actually transfer to authentic workplace contexts.

This research addresses this evaluation gap by foregrounding experience as the primary lens through which to understand the Blended Learning model's effectiveness. The rationale for this focus is threefold. First, vocational education ultimately serves a practical purpose: preparing learners for specific professional roles. Understanding whether training achieves this purpose requires examining not just what students learn, but how they experience the learning process and whether they can apply their knowledge in workplace-relevant situations. Second, the organisation's recent transition to Blended Learning (following two previous iterations during and after COVID-19) means that both instructors and learners are still developing their understanding of how to work effectively within this model. Their experiences – the challenges they encounter, the strategies they develop, and the successes they achieve – represent valuable knowledge that quantitative measures alone cannot capture. Third, the blended nature of the model itself creates unique experiential dimensions that warrant investigation: how learners experience the transition between modalities, how they perceive the relevance of their studies to their future work, and how the social dynamics of learning shift across different instructional formats.

By adopting an experience-focused evaluative approach, this study seeks to provide the organisation with insights that complement existing quantitative data, creating a more complete picture of how well the Blended Learning model serves its intended purpose. This approach acknowledges that educational effectiveness in vocational contexts cannot be reduced to test scores or completion rates; it must also encompass the quality of learning experiences and their alignment with authentic workplace communication demands.

1.2 Background

The integration of technology into education has revolutionised traditional teaching and learning practices. A significant development in this domain is Blended Learning, an approach that combines face-to-face instruction with digital tools to create dynamic and adaptable learning environments (Garrison & Vaughan, 2008). Blended Learning is gaining popularity across various educational contexts as it exploits the advantages of both traditional and digital methods, offering the potential to cater to diverse learning preferences. This approach is particularly relevant in vocational education, where the demand for job-focused skills, including vocational English proficiency, has grown in response to the evolving needs of globalised industries (Billett, 2011). Vocational English, which encompasses oral and written communication skills as well as technical vocabulary, is a critical component of vocational training, aiming to enable learners to communicate effectively in professional settings and meet workplace demands. This makes the effectiveness of educational models, such as Blended Learning, in delivering these skills a subject of ongoing investigation, necessitating robust evaluation frameworks to assess their impact (Kirkpatrick & Kirkpatrick, 2006).

English is the main lingua franca in globalised industries, facilitating communication among multinational teams and ensuring that technical knowledge is accurately shared across linguistic and cultural boundaries (Nickerson, 2015). As industries become increasingly interconnected and reliant on advanced technologies, the need has become clearer for workers who possess – besides technical expertise – strong English communication

skills. This is especially true in sectors such as the oil and gas industry, where effective communication is essential for safety, collaboration, and operational efficiency (Louhiala-Salminen & Kankaanranta, 2012). Moreover, in high-risk environments like oil and gas operations, clear and precise communication is critical to preventing accidents and ensuring compliance with safety protocols (Henderson, 2005). Blended Learning, with its ability to combine the interactivity of in-class instruction with the flexibility of online learning, presents a promising solution for addressing these needs. However, the success of this approach depends on its design, implementation, and alignment with the specific goals of vocational education.

The current study is situated within the broader context of technology-enhanced learning, with a specific focus on the implementation of Blended Learning in vocational English training. To fully understand the potential of Blended Learning in this context, it is necessary to explore three interrelated concepts that form the foundation of this study: Blended Learning, vocational English, and the evaluation of educational models. In the following sub-sections, I delve into the theoretical and practical dimensions of these key areas, providing a foundation for the subsequent investigation.

1.2.1 Blended Learning

Blended Learning has become an umbrella term that encompasses any type of education that includes aspects of in-class and online learning (Horn & Staker, 2017; Hrastinski, 2019; Watson, 2008). The rise of Blended Learning as a prominent educational approach is closely tied to advancements in internet technologies and the increasing accessibility of digital resources. While the term ‘Blended Learning’ gained popularity recently, its roots can be traced back to the 1990s when the internet began to revolutionise access to information and communication (Garrison & Vaughan, 2008). The approach initially developed to enhance flexibility, accessibility, and personalised learning (Hodges et al., 2020) and was accelerated by Learning Management Systems like Blackboard and Moodle, which enabled educators to manage content and engage students beyond classroom hours (Pappas, 2021). These platforms enabled hybrid

course design through multimedia resources, discussion forums, and assessment tools, creating more interactive, student-centred environments (Graham, 2013). As Graham notes, “Blended Learning represents a fundamental reconceptualisation and reorganisation of the teaching and learning dynamic” (p. 4), shifting from lecture-based models to emphasise active engagement and self-directed learning (Garrison & Vaughan, 2008).

Latest developments in technology and pedagogy have further influenced the evolution of Blended Learning. The widespread adoption of mobile devices and high-speed internet has made educational content more accessible, enabling learning to occur anytime and anywhere. Also, the introduction of adaptive learning technologies has expanded the possibilities for personalised and context-aware educational experiences, catering to individual student needs and pacing (Means et al., 2014). For instance, advanced platforms can analyse student performance data to provide tailored feedback and recommendations, enhancing the effectiveness of Blended Learning interventions (Luckin et al., 2016). Moreover, the rise of social media and online collaboration platforms has enabled new forms of interaction and knowledge sharing among learners. Additionally, the COVID-19 pandemic necessitated a rapid shift to online learning across various educational settings, thus accelerating the adoption of Blended Learning as educational institutions worldwide sought to maintain continuity of instruction during lockdowns (Hodges et al., 2020). This period underscored the importance of digital literacy and the need for flexible educational delivery methods and robust infrastructure to support hybrid learning models that can adapt to unforeseen challenges.

In the current educational landscape, Blended Learning continues to evolve, driven by ongoing technological advancements and a growing understanding of effective pedagogical practices. It is increasingly recognised as a valuable approach for enhancing student engagement, improving learning outcomes, and fostering personalised learning experiences (Pane et al., 2014). The flexibility and adaptability of Blended Learning that result from combining digital instruction with traditional classroom methods make it suited to diverse learning contexts (Means et al., 2010). According to a report by the Clayton Christensen

Institute, Blended Learning models continue to gain traction, reflecting their potential to enhance student engagement and outcomes (Horn & Staker, 2017). Although Blended Learning is currently described as being the fastest growing teaching mode, research in this field is still far behind (Archibald et al., 2021).

1.2.2 Vocational English

Vocational English, which is considered a specialised branch of English for Specific Purposes (ESP), focuses on addressing the linguistic needs of individuals in professional or vocational contexts. Unlike general English, which emphasises broad communication skills, vocational English is tailored to meet the specific requirements of various occupations, such as English for Nursing, English for Banking, or English for Oil and Gas. It equips learners with practical language skills essential for effective workplace performance (Basturkmen, 2006; Cullen, 2013; Johns & Price, 2018). Vocational English programmes are typically designed based on needs assessments conducted in target workplaces to identify relevant vocabulary, grammar, and communication skills (Brock, 2010).

Oral communication is a cornerstone of vocational English, as it enables professionals to interact effectively in workplace settings. Oral skills encompass speaking and listening abilities, which are vital for tasks such as giving presentations, participating in meetings, and engaging in customer service. Hutchinson and Waters (1987) emphasise that vocational English must address the real-world communication needs of learners, which often involve oral interactions. For instance, in healthcare, nurses must communicate clearly with patients and colleagues, while in hospitality, employees need to handle customer inquiries and complaints effectively. Approaches to teaching oral skills often include role-playing, simulations, and task-based activities that mirror real-world scenarios (Dudley-Evans & St John, 1998).

Written communication is another basic component of vocational English, as many professions require the ability to produce clear and concise written documents. These may include reports, emails, manuals, and technical

documentation. For example, engineers must be proficient in writing technical reports, while business professionals need to master the conventions of formal emails. Approaches to developing written skills often involve genre-based writing tasks, collaborative writing exercises, and feedback sessions to refine learners' writing abilities (Hyland, 2007).

A third key component of vocational English is technical vocabulary, which refers to the specialised terminology used within a particular profession or industry. Mastery of technical vocabulary is crucial for effective communication in vocational contexts, as it ensures precision and clarity. Nation (2001) argues that vocabulary learning should be a central focus of vocational English instruction, as it directly impacts learners' ability to comprehend and produce language in their fields. For instance, IT professionals must be familiar with terms like 'algorithm' and 'firewall,' while automotive technicians need to understand terms such as 'carburettor' and 'transmission'. Approaches to teaching technical vocabulary often include word lists, contextualised learning activities, and multimedia resources to reinforce understanding (Coxhead, 2000).

Several approaches in ESP literature emphasise the integration of oral skills, written skills, and technical vocabulary in vocational English instruction. One such approach is the needs analysis, which defines the specific language requirements of learners in their professional contexts (West, 1994). By conducting a needs analysis, educators can design curricula that address the unique communication demands of different occupations, ensuring that learners develop the necessary skills to succeed in their careers. Another approach is the use of authentic materials, which are real-world texts and recordings that reflect the language used in specific professions. Using authentic materials helps learners engage with the language in meaningful contexts, which bridges the gap between classroom learning and workplace communication (Guariento & Morley, 2001). For example, medical students might analyse patient case studies, while business students could examine corporate reports.

1.2.3 Evaluating Educational Models

Evaluation occupies a central role in education. It serves as a mechanism to assess the effectiveness, relevance, and impact of educational practices, policies, and models. As educational innovations continue to come to light and educational institutions continue to introduce new instructional models, the evaluation of these educational models becomes a critical endeavour to ensure that pedagogical approaches respond to evolving societal needs and educational goals (Darling-Hammond et al., 2020).

Evaluation in education is deeply intertwined with the values, ideologies, and objectives of stakeholders, including policymakers, educators, and researchers. Scriven (1991) states that evaluation is “the process of determining the merit, worth, or value of something” (p. 1). In the context of education, this ‘something’ may refer to curricula, teaching methodologies, or educational technologies, among others. The positionality of evaluation is further complicated by the diverse perspectives of stakeholders in the educational setting. For instance, policymakers may prioritise cost-effectiveness and scalability, while educators may focus more on pedagogical innovation and student engagement (Weiss, 1998). This multiplicity of perspectives underscores the need for evaluation approaches that consider both quantitative and qualitative dimensions.

Evaluating educational models, particularly in vocational settings, is pivotal for achieving congruence with future workplace demands by ensuring learners acquire the right knowledge and skills. The evaluation of educational models has traditionally been guided by two overarching paradigms: formative and summative evaluation. Formative evaluation, as defined by Bloom et al. (1971), is an ongoing process aimed at improving educational practices during their development. This approach emphasises feedback and iterative refinement, which makes it particularly useful for piloting new educational models. In contrast, summative evaluation focuses on assessing the overall effectiveness of a model after its implementation, often through measurable outcomes such as test scores or graduation rates (Kirkpatrick & Kirkpatrick, 2006). In recent years, educational evaluation research has increasingly employed mixed-methods approaches, combining quantitative data (e.g., standardised test results) with qualitative insights (e.g., teacher and student perceptions) to

provide a more holistic understanding of educational models. Creswell and Plano Clark (2017) note that mixed-methods research allows evaluators to "capture the complexity of educational phenomena" (p. 5). Additionally, participatory evaluation models, which engage stakeholders in the evaluation process, have been introduced to democratise decision-making and enhance the relevance of findings (Cousins & Whitmore, 1998). More recently, frameworks have advocated for a holistic evaluation that encompasses student engagement, self-directed learning skills, and perceived impact on future workplace communication (Yazçayır & Selvi, 2020). The current study aligns with this direction, focusing mainly on the experiences of instructors and learners to present a holistic evaluation of the target Blended Learning model. While mixed-methods approaches offer comprehensive evaluation frameworks, this study deliberately adopts qualitative methodology to provide in-depth exploration of stakeholder experiences and perceptions – insights that are particularly crucial given the organisation's existing quantitative evaluation measures (test results and satisfaction surveys) but absence of qualitative assessment, as detailed in the next section.

1.3 Context

The current study is conducted within a vocational training organisation that operates seven training centres across Saudi Arabia, catering to prospective employees (apprentice trainees) and current employees of a major oil and gas company. These centres deliver a range of training programmes, including academic courses (e.g., English, Mathematics, Clerical), job skills courses (e.g., Craft, Technical, Operator), and safety courses. Apprentice trainees typically enrol in a one-to-two-year programme that begins with academic training and transitions to specialised job skills training tailored to their future roles. This specialised training is conducted in workshops designed to simulate real workplace environments, ensuring that trainees are well-prepared for their future jobs.

In this context, "vocational English" refers to the English language skills targeted for development within the organisation. These skills are determined

through needs assessments conducted by the curriculum development division, which evaluates the linguistic demands of trainees' future business lines. The resulting curricula are customised to cater to these professional requirements to ensure that the trainees are well-prepared for the linguistic requirements of their careers. This approach reflects a broader trend in vocational education, where language training is increasingly tailored to meet industry-specific needs (Billett, 2011).

Although not all the seven training centres are physically located within industrial fields (e.g., plants), they all replicate the corporate environment in several ways. This includes embodying the corporate culture, adhering to its rules and regulations, and reflecting the hierarchy and role expectations of the workplace. Additionally, the curriculum content is directly informed by the needs of the business lines, ensuring alignment with the future roles of trainees. Within this setting, the concept of Legitimate Peripheral Participation (Lave & Wenger, 1991) is evident, as apprentice trainees (newcomers) interact with their academic teachers and job skills trainers (experienced members), fostering authentic learning experiences.

Evaluation within this context traditionally relies on statistical measures, such as test results and Likert-scale student satisfaction surveys. However, as Prosser (2011) argues, such methods are limited in their ability to capture the nuanced ways in which students experience learning. These experiences are shaped by their prior learning, current life circumstances, and instructional design. Prosser (2011) advocates for methods like focus group discussions and open-ended questions to better understand student responses and improve learning outcomes. This critique concurs with the current study's aim to evaluate the effectiveness of the Blended Learning model through the perspectives of both learners and instructors, viewing evaluation as a "social practice bounded by the purpose, intention, or function of attributing value or worth to… a sectoral activity" (Saunders, 2011, p. 3). This perspective emphasises the importance of leveraging both explicit and tacit knowledge held by participants, which is explored in this study through qualitative data collection and analysis.

The Blended Learning model under investigation combines in-class instruction with online self-directed learning. This model represents the organisation's latest attempt to refine its training approach, following two earlier iterations. The first, implemented during the COVID-19 pandemic (March 2020 to August 2021), was primarily online and aimed at maintaining training continuity during the lockdown. However, it yielded unsatisfactory graduate quality in terms of the graduates' communicative abilities as shown by internal quality reviews and customer surveys, and also as frequently expressed by customer organisations during business meetings. This experience aligns with broader research findings that documented significant challenges with COVID-19 online instruction, including technical problems and lack of social contact leading to decreased support for online learning (Baklazhenko & Kornieva, 2023) and only moderate satisfaction with emergency e-curricula implementation (Al Shdaifat et al., 2022). The second iteration (August 2021 to September 2023) introduced a blended approach with an 80:20 ratio of in-class to online instruction, using Blackboard as an LMS. Challenges with this model included a curriculum designed for pure in-class instruction rather than Blended Learning, leading to its eventual discontinuation. The current model, which is internally labelled the "modular curriculum," builds on these experiences by increasing the online portion to a 60:40 ratio and bringing a curriculum specifically designed for Blended Learning.

In the current model, the online component (Part 1 and Part 2 of each module), delivered via Blackboard, introduces target language functions, overview of tasks, and new vocabulary items, whereas in-class sessions (Part 3 of each module) focus on practicing the functions through collaborative oral and written exercises. Table 1 presents the structure of modules under the Blended Learning Model (each module covers one function).

Part	Modality	Percentage & Duration	Content
1. Introduction	Self-Directed Learning	7% 20 minutes	Introduces learners to the function, its context, and the related functional language.

2. Input	Self-Directed Learning	33% 95 minutes	Introduces the functional language in various contexts and forms. It makes use of machine-checkable activities.
3. Output	In-class	60% 175 minutes	Provides learners with ample opportunities to produce the functional language in various situations and contexts. It highlights activities that require learners to work with others and get feedback on their performance.

Table 1 Structural Breakdown of a Blended Learning Module

A key improvement over previous models is that the curriculum is designed specifically for this blended approach, with each activity tailored to a specific learning modality (i.e., in-class or online). Despite these advancements, the evaluation of the current model, like its predecessors, relies solely on quantitative measures, including curricular assessments (formative and summative), end-of-course student satisfaction surveys, and annual surveys of graduates and their supervisors. These evaluations use numeric passing scores and 5-point Likert scales translated into satisfaction percentages. Therefore, the lack of qualitative evaluation that captures the perspectives of key stakeholders – educators and learners – represents an underexplored area. The current study addresses this underexplored area by providing a thorough qualitative assessment of the Blended Learning model's effectiveness in developing vocational English skills.

1.4 Motivation & Rationale

Given the established importance of vocational English in high-risk industrial contexts, where precise communication is critical for safety and operational efficiency (Henderson, 2005), the effectiveness of training programmes depends significantly on the instructional models employed. While Blended Learning approaches offer theoretical advantages for vocational education through their integration of interactive instruction and flexible online components, empirical evaluation of their effectiveness in developing these

specialised English skills remains notably limited (see Chapter 2 for details). This gap persists despite the widespread recognition of the importance of English communication skills in globalised industries (Belcher, 2012; Louhiala-Salminen & Kankaanranta, 2012). Therefore, motivated by this scarcity of research, the present study addresses this under-researched area by comprehensively evaluating stakeholder experiences and the effectiveness of a Blended Learning model within an industrial training context.

1.4.1 Personal Motivation

At a personal level, this study is driven by a desire to explore the experiences and perspectives of the frontline users of the Blended Learning model, namely, the instructors and learners. I have been working in the organisation where this research is conducted since 2006. Throughout this career, I moved from an English teacher's job to a programme coordinator's role, to a principal of the English unit's position, to a quality assurance function, and finally to a career counsellor's role, all within the same organisation. During this period, I have seen new training models and programmes – including the target Blended Learning model – being evaluated using quantitative methods, basically through students' test results and customer satisfaction surveys. Although such quantitative methods offer valuable insights into the model's effectiveness, they often fall short to capture the nuanced experiences of those directly involved in the learning process. For instance, while test scores might indicate that students are achieving the required proficiency levels, they do not reveal how students feel about the learning process, whether they find the online components engaging, or whether they encounter difficulties in transitioning between in-class and online activities. Similarly, while satisfaction surveys might provide an overall assessment of the model's effectiveness, they do not offer detailed insights into why students or teachers might feel a certain way. By adopting a qualitative approach, this study aims to uncover the challenges, successes, and nuances of the Blended Learning model that might otherwise remain hidden. In other words, this study aims to provide – through focusing on the perspectives of teachers and students – a more holistic understanding of the Blended Learning model's impact, highlighting areas for improvement, and

informing future iterations of the model. From a methodological perspective, this research benefits from my position as an insider researcher with extensive institutional knowledge while maintaining appropriate analytical distance from the specific programme under investigation (see Section 4.4 for detailed discussion of researcher positionality).

1.4.2 Institutional Motivation

At the institutional level, this evaluation holds significant value for the training department's management and broader organisational development. The study provides a theoretically grounded and academically rigorous qualitative assessment that complements existing quantitative measures, creating a comprehensive evaluation framework essential for evidence-based decision-making. Although existing quantitative evaluations provide valuable performance metrics, they offer limited insight into the pedagogical processes, learner experiences, and implementation challenges that determine long-term programme sustainability and effectiveness. This qualitative evaluation addresses these gaps by examining stakeholder perspectives, identifying implementation barriers, and uncovering factors that influence learning outcomes – insights that are crucial for programme refinement, resource allocation, and strategic planning.

This study employs qualitative methodology grounded in Situated Learning theory to evaluate stakeholder experiences within the Blended Learning model. This approach captures contextual learning processes and community participation dynamics that quantitative measures cannot adequately address, while informing the optimisation of vocational English training approaches (see detailed theoretical framework in Chapter 3).

1.4.3 Contribution to Research and Practice

The study's focus on Blended Learning, vocational English, and qualitative evaluation marks a significant contribution to both research and practice. From a research perspective, the study addresses an underexplored area in the literature by providing a detailed evaluation of a Blended Learning model in a

vocational training context. While there is a growing body of research on Blended Learning in higher education (as detailed Chapter 2), there is limited research on its application in vocational education, particularly in the context of language training. By focusing on vocational English, the study also contributes to the broader field of ESP, which emphasises the importance of tailoring language training to meet the needs of specific professional contexts (Belcher, 2012).

From a practical perspective, the study's findings have the potential to inform the design and implementation of Blended Learning models in vocational training organisations. By showing the strengths and limitations of the current model, the study provides recommendations for improving its effectiveness and ensuring that it meets the needs of the trainees. This is particularly important in the context of the oil and gas industry, where the ability to communicate effectively in English is critical to ensuring safety and operational efficiency.

1.5 Research Questions

The main research question of this study is:

RQ1. How does the Blended Learning model implemented in a vocational training organisation in Saudi Arabia support the development of English language skills that are relevant to the learners' vocational needs?

This main question branches down into the following sub-questions:

RQ1.1. How does the face-to-face component of Blended Learning support the development of English language skills that are relevant to the learners' vocational needs?

RQ1.2. How does the self-directed component of Blended Learning support the development of English language skills that are relevant to the learners' vocational needs?

RQ1.3. To what extent does the Blended Learning model create an authentic context for learning English applicable to the students' future work needs?

These research questions are designed to provide a comprehensive evaluation of the Blended Learning model through the experiences and perceptions of its key stakeholders. The questions reflect deliberate choices about what aspects of the model to investigate and from whose perspective.

The main research question focuses explicitly on how the Blended Learning model supports vocational English development, rather than simply whether it is effective or how effective it is compared to other approaches. This ‘how’ framing aligns with the study’s evaluative purpose: to understand the mechanisms and processes through which the model operates, thereby providing actionable insights for improvement rather than merely summative judgements of success or failure. The emphasis on ‘vocational needs’ acknowledges that the model’s ultimate purpose is not just to develop general English proficiency but to prepare learners for the specific communication demands of their future roles in the oil and gas industry.

The three sub-questions represent a deliberate unpacking of the model’s key components and their relationship to authentic workplace contexts. Sub-questions 1.1 and 1.2 examine the face-to-face and self-directed components separately, recognising that each modality may contribute differently to skill development and that understanding these distinctive contributions is essential for optimising their integration. Sub-question 1.3 shifts focus from the model’s components to its overall alignment with vocational purposes, examining whether and how the learning environment reflects the authentic communication contexts learners will encounter in their professional roles. Together, these questions create an evaluative framework that addresses both the internal functioning of the Blended Learning model (how its components work individually and together) and its external validity (how well it prepares learners for actual workplace demands).

1.6 Thesis Outline

The manuscript of this study is structured as follows, after this “Introduction” chapter: Chapter 2 “Literature Review” examines existing scholarship on

Blended Learning, vocational English, and evaluating educational models, setting up the foundation for the study. Chapter 3 “Theoretical Framework” outlines the conceptual underpinnings that guide the research, while Chapter 4 “Research Design” details the methodology employed to investigate the central problem. Chapter 5 “Findings” presents the empirical results, and Chapter 6 “Discussion” interprets these findings in relation to the study’s aim and broader implications through the lens of its theoretical framework. Finally, Chapter 7 “Conclusions and Recommendations” synthesises the insights gained and offers practical recommendations for different stakeholders.

Chapter 2: Literature Review

This chapter discusses the positionality of the study in relation to existing literature, to show how prior research informs the thesis and set the stage for contributions that this study makes to educational research. Before presenting the literature review, it is important to acknowledge the deliberate choices made in determining its scope and structure, as these decisions shaped what evidence was included and how it was organised. The primary decision was to structure the review around three core notions – Blended Learning, vocational English, and evaluating educational models – each representing a distinct body of scholarly work relevant to this study. This tripartite structure was chosen because it allowed systematic examination of how each field has addressed related phenomena while also revealing gaps at their intersection.

Several alternative approaches were considered. One option was to organise the review thematically around key concepts such as ‘authenticity’, ‘skill transfer’, or ‘technology integration’, drawing from all three fields simultaneously. While this approach would have highlighted theoretical connections across fields, it would have made it more difficult to identify the specific gaps within each scholarly tradition and to show how this study contributes distinctively to multiple conversations. Another option was to structure the review chronologically, tracing how thinking about technology-enhanced vocational education has evolved over time. However, given the relatively recent emergence of Blended Learning as a distinct approach (particularly in vocational contexts), this would have resulted in an unbalanced review weighted heavily towards recent publications.

The chosen structure offers several strengths. It allows clear demonstration that while each field has developed sophisticated understandings within its own domain, their intersection – where this study sits – remains underexplored. It also enables transparent reporting of search strategies and selection criteria for each field, enhancing the review’s reproducibility. Additionally, by treating each field separately before examining their intersection, the review can identify

which theoretical insights and empirical findings from each tradition are most relevant to the current study.

However, this approach also has limitations. It risks creating somewhat artificial boundaries between fields that, in practice, often overlap. For instance, some Blended Learning studies inevitably address evaluation, just as some vocational English research incorporates technology-enhanced approaches. The rigid categorisation may also obscure important theoretical connections that become apparent only when viewing the fields together. To mitigate these limitations, the review concludes, in Section 2.4, by explicitly discussing the intersections and identifying how this study's positioning at the nexus of all three fields addresses significant gaps in existing knowledge. This final section helps to overcome the compartmentalisation inherent in the tripartite structure by showing how insights from different fields can be synthesised to inform the current research.

The chapter presents three important related notions that make up the body of knowledge within which the current research project sits: Blended Learning, vocational English, and evaluating educational models. In each of the main sections of this chapter, I describe the process I followed to find available studies related to the subject notion and how I analysed these studies. Through this process, I illustrate how the notion has been addressed in extant research to elucidate what is generally known about it. After that, I delve into the nexus of the three notions to highlight the theoretical grounding of the current research within this literature and its placement in educational research at large, with which I conclude this chapter.

To define the delimitations of this literature review, I mainly relied on SCOPUS as I aimed for peer-reviewed empirical papers, but I also resorted to other databases, including Google Scholar, Education Resources Information Centre (ERIC), and Web of Science, to ensure full coverage and that I have not missed valuable sources. In my searches, I used the following inclusion/exclusion criteria:

- Research conducted since 2020. This timeframe was selected to manage the scope of literature for a thesis of this size, as initial searches revealed an extensive body of research that required delimitation for practical review purposes. While acknowledging that this period included both planned institutional Blended Learning implementations and emergency remote teaching (ERT) responses to COVID-19, and recognising the potential limitations of emergency teaching contexts, these studies provided valuable insights into stakeholder experiences with technology-enhanced learning modalities relevant to this evaluation. When searching for studies about 'vocational English', I extended the search to 2014 due to limited recent research in this specialised area.

- Articles published in journals and book chapters only, because these typically undergo thorough peer review.

- Works in the field of Social Sciences only because this is my specialty area.

- Sources published in English language only, because this is the language of the current research and one of the target research variables.

2.1. Blended Learning

To address the first notion, Blended Learning, and how it was investigated in published research, I searched for ([“Blended Learning” OR “hybrid learning”] AND English AND [second OR foreign] AND language) within article titles, abstracts, and keywords. The search returned 181 documents. Upon initial screening, I excluded 58 studies that I identified as irrelevant to the current research for different reasons:

- One study addressed Portuguese language instruction not English language instruction.

- Twelve studies were not empirical (e.g., literature reviews, opinion articles, theoretical proposals).

- Forty-five studies addressed technological phenomena that were labelled Blended Learning but were not actually Blended Learning. Examples included emergency remote teaching (ERT) during COVID-19, online learning, and the use of tools like Facebook or Google Meet in English language teaching contexts.

After further scrutiny, I excluded 95 more studies for two main reasons:

- Forty-two studies were interventionist, proposing the use of Blended Learning for teaching certain language skills. I considered these studies to be irrelevant to the current research as interventionist studies by design aim to prove the effectiveness of phenomena while the current study, being evaluative, adopts a more neutral position (Patton, 2015; Pawson & Tilley, 1997; Rossi et al., 2004; Weiss, 1998).

- Fifty-three studies addressed certain educational phenomena within Blended Learning contexts (e.g., cultural heritage, psychological capital, social presence) but did not primarily investigate Blended Learning itself.

This left 28 studies that I found relevant to the current research. After critically examining these studies, I classified them into two categories. The first category consisted of 16 studies that conducted evaluation of Blended Learning following different approaches. The second category consisted of 12 studies that compared Blended Learning to other modalities. In the following lines I discuss each of these categories in detail.

2.1.1 Evaluation of Blended Learning

I divided the 16 studies in this category into three sub-categories according to the educational context where they were conducted, as follows.

2.1.1.1 Evaluations Conducted in Public Schools

Three studies examined Blended Learning implementation in public school contexts, though their varying methodological approaches and research quality warrant careful consideration. Strong empirical evidence comes from a quasi-experimental study in Indonesia, which demonstrated significant learning outcome improvements in English and physics through Blended Learning using augmented reality, Edmodo, and Tinkercad (Derlina et al., 2020). However, methodological limitations exist: the 70-participant sample was divided into experimental (n=35) and control (n=35) groups using random sampling, yet limited detail is provided about baseline matching, and other variables that might have affected the results, such as teacher experience and home support, are not adequately addressed.

A sequential-explanatory mixed-methods investigation explored senior high school ESL students' perceptions about Canvas LMS in Blended Learning research writing classes in the Philippines (Hajan & Padagas, 2021). This study showed clearer documentation of procedures and used established instruments like the Web-based Learning Environment Instrument, though its focus on perceptions rather than learning outcomes limits its contribution to effectiveness evidence. The single-institution design restricts generalisability, but the researchers' identification of implementation challenges – particularly internet connectivity issues affecting online assessments and insufficient training – presents practical insights sometimes overlooked in theoretical Blended Learning research.

The most comprehensive approach investigated Taiwanese elementary school English teachers' professional development through six Blended Learning training sessions on professional identity construction (Chien, 2022). The research combined quantitative surveys and qualitative analysis among 19 participants across five communities, though classroom applicability remains limited. The study revealed institutional factors affecting success, particularly how teachers' administrative status and school size influenced engagement levels. However, focusing on teacher development rather than student outcomes creates limitations for understanding instructional effectiveness.

These studies illustrate both potential and challenges of Blended Learning in public education yet still have limitations as explained above. All three studies were conducted in settings differing from industrial training environments, where resource constraints and infrastructure challenges may be less prominent.

2.1.1.2 Evaluations Conducted in Non-University Tertiary-Level Settings

There were three studies in this sub-category. Mirabolghasemi et al. (2021) investigated satisfaction with LMS-based Blended Learning among 384 Iranian EFL learners. Their quantitative research found system quality was the strongest predictor of satisfaction, followed by teaching presence, cognitive presence, and information quality. Notably, social presence showed no significant relationship with learner satisfaction, contradicting established research. The authors suggest users prioritised functional system features over social interaction. While the study's robust methodology (large sample size, validated survey) was a strength, its single-institution focus using Moodle limits generalisability. Also, the unexpected result regarding social presence warrants cautious interpretation, as cultural factors may have influenced findings.

Tan et al. (2022) examined Blended Learning effects on 148 Chinese minority students acquiring English as a third language using questionnaires and interviews. They found this environment helped cultivate autonomous learning. High-achieving learners demonstrated superior self-learning abilities, better strategies, and greater willingness to seek help. However, both high and low achievers reported high anxiety levels, contradicting expectations. While the study's focus on an under-researched population is a strength, its single-institution scope limits generalisability. Nevertheless, it offers valuable insights into supporting such students in technology-enhanced learning environments.

Dos Santos and Kwee (2022) phenomenologically studied 40 senior citizens in Hong Kong pursuing English-as-an-Additional-Language through Blended Learning. Using interviews and focus groups, the study found Blended Learning's flexibility successfully accommodated learners' family responsibilities

and enabled them to achieve personal goals, simultaneously developing both English and digital literacy. While constrained by single-institution data, the study's findings challenge assumptions about older adults' technological capabilities. It provides valuable evidence for designing inclusive educational programmes for senior populations.

These three non-university studies reveal significant contextual variations in Blended Learning effectiveness, with Iranian learners prioritising system functionality over social interaction, Chinese minority students showing unexpected anxiety patterns, and Hong Kong seniors demonstrating remarkable adaptability. Unlike these educational settings, the current study's vocational oil and gas training context addresses an underexplored intersection where workplace authenticity and professional communication demands create different learning priorities, positioning this research to contribute unique insights into industry-specific English development needs.

2.1.1.3 Evaluations Conducted in Universities

Ten studies examined Blended Learning in university contexts across diverse international settings, though their methodological limitations and mixed outcomes call for careful consideration. The strongest empirical evidence comes from Deng and Sitthitikul's (2025) 18-week intervention with 63 Chinese EFL students, using pre-test/post-testing, questionnaires, and interviews. The study used a structured writing process where students provided online feedback through the Kdocs platform using a guidance framework. This approach yielded significant improvements in argumentative writing using guided dialogic peer feedback. Jitpaisarnwattana's (2025) quasi-experimental study (one-group pre-test/post-testing) of 178 Thai university students also showed significant improvements in oral presentation skills and overall language proficiency after five weeks through a personalised learning plan within a Language MOOC. However, pronunciation gains were of limited practical impact, and the brief timeframe raises concerns about the sustainability of improvements. Both studies' single-institution designs and specific cultural contexts limit broader applicability.

Several studies revealed positive student perceptions but had methodological limitations. Mohamed's (2022) mixed-methods study of 148 Saudi pre-service teachers examined Blended Learning implementation during COVID-19, utilising surveys and interviews to explore perceptions of online and face-to-face pedagogical practices. The participants valued flexibility and collaboration, though findings may have been influenced by the pandemic context that necessitated rapid implementation. Rahman's (2021) quantitative survey of 70 Saudi undergraduates (50% male, 50% female, aged 18-25) used a five-point Likert scale to measure attitudes towards Blended Learning. The study similarly showed positive attitudes but had weaknesses: it lacked a theoretical framework and only measured attitudes rather than actual learning outcomes. Ramalingam et al. (2021) employed a case study approach with pre- and post-assessments to evaluate how Blended Learning developed 4C skills (communication, collaboration, critical thinking, creativity) in undergraduate Malaysian students. They identified enhanced 4C skills among students, but the very small sample (n=5) limits the reliability of these findings.

Infrastructure and pedagogical challenges were persistent themes. Le et al. (2022) used semi-structured interviews to explore barriers to Blended Learning implementation from a lecturer perspective, employing thematic analysis to categorise responses into institutional, technological, and pedagogical challenges. Their study of 30 Vietnamese lecturers across 10 institutions identified eight key barriers including inadequate infrastructure, insufficient institutional support, and lecturer incompetence. However, the focus on lecturer perspectives only without including student voices limits understanding of implementation effectiveness. Wahyuningsih and Afandi (2023) employed a narrative inquiry approach to capture both lecturer (n=4) and student (n=4) experiences implementing Blended Learning during the COVID-19 pandemic in Indonesia. They found positive attitudes towards Blended Learning yet noted significant challenges including poor internet connectivity and low student motivation. The small sample size and single-institution focus restrict generalisability. Cao et al. (2024) conducted a qualitative case study involving five third-year English majors at a private university in China, using interviews

and observations over ten weeks. They reported predominantly negative student perceptions of Blended Learning, citing doubled workloads, poor integration between online and face-to-face components, and inadequate teacher support. The small sample and focus on a single private university limit the transferability of these negative findings.

Other studies investigated Blended Learning implementation and adoption processes but revealed methodological constraints that limit their contributions to the field. Kuzmina et al. (2021) tested three Blended Learning models with 60 students and 40 lecturers to examine foreign student integration into university educational processes in Russia. While participants recognised Blended Learning's importance for integration, they had limited knowledge of specific implementation methods and types. The study employed a descriptive approach rather than rigorous empirical investigation, lacking robust outcome measures, and the single-institution sample further restricts the findings' transferability. Kieu et al.'s (2024) case study employed the Concerns-Based Adoption Model (CBAM) – a model for understanding how individuals adopt and implement innovations – to investigate seven Vietnamese lecturers' Blended Learning practices and concerns at a university with an established LMS. The lecturers demonstrated superficial understanding of Blended Learning principles, viewing online components as peripheral supplements rather than pedagogically integrated elements. The small sample from one institution limits generalisability potential despite the systematic theoretical grounding.

These university-based studies reveal positive perceptions about Blended Learning but highlight critical barriers including infrastructure deficits, inadequate teacher training, and poor pedagogical integration across diverse contexts (Russia, Malaysia, Saudi Arabia, Vietnam, Indonesia, China, Thailand). Notably, only four studies focused on quantitative learning outcomes, while the majority used qualitative methods, underscoring the value of qualitative methods that this study is adopting. Unlike these general university contexts, the current vocational study addresses authentic workplace preparation needs within industrial training settings.

2.1.2 Comparing Blended Learning with Other Modalities

Twelve studies examined the comparative effectiveness of Blended Learning against traditional and online modalities, revealing mixed findings that invite careful consideration. Strong quantitative evidence comes from several rigorous designs, though methodological limitations constrain broader conclusions.

Studies focusing on academic performance revealed mixed evidence for modality superiority. Tretyakova et al. (2023) provided compelling evidence through an experimental study with 96 Russian economics students. They demonstrated Blended Learning's statistical superiority over traditional and fully remote methods for professional English vocabulary, yielding highest gains in written and oral tasks. However, findings are constrained by a homogeneous sample from a single institution, limiting wide-scale generalisability. Gaffas (2023) compared Saudi ESP students' experiences of virtual (using Blackboard) and Blended Learning (using Adobe Connect) across five pedagogical dimensions: course design, student-instructor interaction, student-student interaction, individual learning processes, and learning outcomes. Both groups reported similar challenges including unclear course structure, technical problems, and demanding workload. However, virtual learners demonstrated significantly higher LMS proficiency and perceived the system as easier to use, while also showing greater enthusiasm for collaborative group work. Notably, students in both modes reported inadequate social interaction, missing contact with instructors and peers, and experiencing difficulty establishing personal relationships. The study concludes that instructional design quality may matter more than delivery format. The study's single-institution, female-only sample provides context-specific insights, though generalisability requires broader sampling. Ginzburg and Daniela (2024) examined how 168 Latvian university students perceived learning English across three modalities: face-to-face, online, and blended. The study controlled for instructor and content to isolate modality effects. Quantitative results showed no significant differences in teaching evaluation scores across modalities, suggesting that instructor quality may matter more than delivery format. However, qualitative interviews revealed

alumni preferred blended approaches. This inconsistency may reflect that blended learning was more convenient for busy professionals rather than being genuinely more effective.

Studies exploring learner preference revealed varied findings, with practical factors and implementation quality influencing attitudes towards Blended Learning. Handayani et al. (2024) investigated post-pandemic preferences across Balinese universities using a sequential explanatory design with questionnaires from 100 lecturers and 200 students, followed by interviews with selected participants. They found face-to-face learning deemed more effective, yet Blended Learning was preferred as a pragmatic 'win-win solution' balancing educational needs with health concerns. However, regional focus and self-reported data without observational evidence limit applicability to long-term planning. Meyers et al. (2024) explored South African TVET college students' perceptions of face-to-face versus Blended Learning for academic writing. Through qualitative case study using semi-structured telephone interviews, the investigation revealed strong traditional instruction preference due to direct engagement, immediate feedback, and reliable access needs. Many cited data costs as major barriers worsening inequality, though they recognised potential benefits of combining approaches. However, the small sample size (n=12) limits generalisability, and the study's focus on perceptions without measuring actual learning outcomes provides limited evidence of educational effectiveness. Arrosagaray et al. (2022) conducted a large-scale quasi-experimental study comparing face-to-face, blended, and distance learning with 627 Spanish adult learners across nine regions, using the Foreign Language Attitudes and Goals Survey (FLAGS). The study found generally positive attitudes toward foreign language learning but notably lower motivation among Blended Learning participants compared to face-to-face learners, while distance learners showed greater interest in the language. This suggests issues with how Blended Learning was implemented in these specific contexts rather than fundamental flaws with the approach itself. However, the snapshot approach prevents determining whether implementation issues caused lower

motivation or that less motivated students were simply placed in Blended Learning groups.

Crisis-context studies offer unique insights into adaptation challenges. Baklazhenko and Kornieva (2023) analysed educator surveys from 2021 and 2023 across approximately 50 Ukrainian institutions during COVID-19 and wartime. They revealed dramatic increases in online teaching experience (22.9% to 88.4%) and improved digital confidence yet decreased support for Blended Learning, contradicting claims of successful adaptation of Blended Learning. Also, non-random sampling and the unique wartime context limit broader applicability. Holovatska (2023) surveyed 120 Ukrainian students about their experiences with Blended Learning for English instruction during COVID-19. Most students (51%) preferred Blended Learning with 88% reporting improved skills. A minority (16%) found it unbeneficial due to reduced face-to-face interaction. The study did not explore these negative experiences in detail. Also, students may have favoured flexible learning options because of pandemic circumstances rather than genuine educational preferences. Sánchez-Sánchez and Encabo-Fernández (2023) conducted a longitudinal study of 1,496 Spanish university students across four periods. The researchers used quantitative analysis to compare grades from the first exam session of each year. They found higher pass rates during COVID-19 pandemic (48%) and blended (45%) years compared to normal (35%) and post-pandemic (38%) periods. However, researchers questioned whether improvements stemmed from effective Blended Learning or altered assessment conditions such as modified grading or potential academic dishonesty.

Healthcare and professional contexts demonstrated varied outcomes. Ahmed et al. (2024) examined four Blended Learning models – rotation (alternating online and in-person), flex (self-paced with optional support), self-blend (traditional plus optional online), and enriched-virtual (hybrid campus and online) – for 150 Indian nursing students through randomised experimental design with pre- and post-TOEFL testing. They found the rotation model markedly superior due to balanced activity integration and immediate feedback. However, applicability is limited by homogeneous sampling, potential single instructor bias, and short 10-

week duration. Usama et al. (2024) compared Web-Based, Blended, and traditional instruction for Hindi-speaking medical students using a quasi-experimental design with TOEFL pre/post-tests, (n=90). Blended Learning achieved the most substantial improvements in comprehensive English skills, though findings are constrained by highly specific sampling and seven-week intervention without examining technology access barriers.

Recent studies continue demonstrating mixed outcomes. Tosun and Gönen (2025) investigated a seven-week blended extensive reading programme for 14 Turkish EFL learners using Google Classroom and Padlet. Using a sequential explanatory design with reading attitude surveys and semi-structured interviews, they found significant reading attitude improvements and enhanced motivation through qualitative data. However, participants reported digital reading challenges including eyestrain, distractions, and virtual library navigation difficulties. The study's small sample size (n=14) and brief seven-week duration limit generalisability.

These comparative studies reveal that contextual factors – infrastructure, socioeconomic barriers, and pedagogical design – appear more critical than modality choice alone. While some research demonstrates Blended Learning effectiveness in specific contexts, others show no significant differences or highlight implementation challenges. The current vocational study contributes by examining authentic workplace-oriented English development rather than general academic language skills, presenting neutral evaluation without direct comparison.

2.2. Vocational English

To address the second notion, vocational English, and how it was investigated in earlier research, I searched for (vocational AND English AND skills) within article titles, abstracts, and keywords. The search returned 169 documents. Upon initial screening, I excluded 88 studies that I identified as irrelevant to the current research for different reasons.

- One study was not educational but addressed a subject in sociology (social acceleration of immigrants).
- Two studies were repeated (i.e., the same study with two publication dates – two cases).
- Twenty-five studies were not empirical (e.g., literature review, needs analysis, opinion article, description of a project, theoretical proposal).
- Sixty studies addressed other subjects within vocational training than English skills (e.g., gender bias, workplace literacies, entrepreneurial skills, metacognitive skills, soft skills, teacher agency, challenges facing teachers).

Upon further analysis, I excluded 67 more studies that addressed different features related to vocational English (e.g., developing English textbooks, higher order thinking skills, analysis of affective variables on ESL, interactive drama for English speaking), none of which involved any of the other notions that are central to this research, namely Blended Learning and evaluating educational models. This left 14 studies that I found relevant to the current research, so I discuss them in detail in this section.

First, I classified these 14 studies into two categories. The first included nine studies that conducted evaluations of certain educational phenomena in relation to vocational English. The second included five studies that addressed vocational English in Blended Learning contexts. In the following lines I discuss each of these categories in detail.

2.2.1 Evaluation within Vocational English Contexts

Nine studies examined English instruction in vocational contexts, with some revealing gaps between educational provision and workplace demands, while others focused on pedagogical approaches and implementation challenges. Evaluations of specific teaching methodologies (CLIL, flipped classroom, and ESP-based approaches) demonstrated innovative potential, whereas research

into communicative approach implementation revealed implementation challenges including inadequate curricula, reduced teaching hours, and traditional policy frameworks. Lipkova (2020) conducted a pedagogical experiment at a Slovak secondary vocational school examining Content and Language Integrated Learning (CLIL) for teaching Mechanics. The study compared two groups of 32 students each through pre- and post-testing, examining cognitive knowledge achievement in English. CLIL significantly improved students' technical vocabulary acquisition and motivation. However, findings have limited generalisability as the 64 students came from one school, and lack of clarity about intervention timeframe makes it difficult to assess sustainability of improvements. The focus on mechanical engineering also limits transferability to other technical disciplines. Karataş et al. (2024) used qualitative case study methods to examine communicative approach implementation in Turkish vocational high schools. Using interviews, observations, and document analysis, they found a significant gap between theory and practice despite teachers' theoretical awareness. Classrooms remained teacher-centred, with 70% using traditional layouts. The study concluded that teacher training proves insufficient without addressing systemic barriers like inappropriate curricula, reduced teaching hours (two weekly), and policy frameworks perpetuating traditional methodologies. The study's focus on a single national context may not reflect implementation challenges in other educational systems.

Studies of digital instruction included both a flipped classroom evaluation and a survey of ERT experiences. Karapetian (2020) evaluated the flipped classroom model for teaching Business English to 87 Ukrainian Economics students (44 experimental, 43 control) through mixed-methods research using achievement tests, questionnaires, and critical thinking assessments. The study found that replacing teacher-centred instruction with student-centred, problem-based learning enhanced critical thinking skills and improved academic performance. However, generalisability is limited by the single university sampling. Gadusova et al. (2021) surveyed 52 Slovak vocational students on ERT experiences during COVID-19. Students' perceived benefits included home comfort and less

dense timetables. However, drawbacks included technical problems, increased homework, and lack of social contact, leading to strong preference for traditional classroom education. The study's timely capture of crisis perspectives represents a strength, highlighting that Zoom lessons and worksheets practised different language skills. However, contradictory questionnaire results (home schooling aspects viewed both as strengths and weaknesses by different students) and small sample size limit generalisability.

Industry-academia gap analyses revealed competency disparities through comparative approaches. Wang and Sun (2014) compared self-perceived English proficiency between Taiwanese hospitality students and hotel employees. Using a survey design with 126 students and 20 employees, they identified significant gaps with employees demonstrating higher proficiency across all skills. The finding that writing was the weakest skill offers curriculum revision guidance. However, the focus on Taiwan and traditional language skills – which emphasise discrete, separate abilities rather than integrated communicative competence – limits transferability. Sislioglu and Demirel (2015) evaluated Maritime English education delivery in Turkey through senior cadet surveys with 55 participants. The study revealed strong agreement on English's critical role for safety, employment, and professional development. However, it identified major challenges including linguistic differences, inadequate teaching materials, and instructor limitations. The study highlights the gap between recognising English importance and achieving actual competency. However, the homogeneous participant group and reliance on self-reported perceptions limit the study's generalisability.

Programme evaluation studies showed mixed outcomes. David and Kanno (2021) analysed community college catalogues from nine US states, finding significant disparities in ESL programme quality and accessibility. Course sequences varied considerably in length, and skills-based instruction dominated despite evidence favouring content-based approaches. Notably, 48.9% of colleges failed to specify ESL placement procedures, potentially disadvantaging students transferring between institutions. However, the study's reliance on published catalogues rather than actual classroom practices limits its findings.

Huynh et al. (2024) phenomenologically investigated a 240-hour vocational English programme's impact on Vietnamese university EFL learners through post-programme interviews. They found positive enhancement of language proficiency, employability skills, and personal growth. However, generalisability is constrained by a sample size of only 20 participants from a single institution. Luo et al. (2024) assessed a technical communication module for Chinese automotive engineering students using quasi-experimental design with 59 first-year students using pre- and post-tests, group interviews, and instructor interviews. The study demonstrated significant improvements with 50.6% gains in written and 29.5% in oral skills after three-week ESP-based intervention. The study's strength lies in applying cognitive apprenticeship theory in authentic vocational scenarios. However, methodological limitations include absence of control groups preventing causal attribution. The shortened 12-hour intervention due to COVID-19 and single-institution researcher-led instruction limit generalisability.

These vocational English evaluation studies highlight gaps between educational provision and workplace demands. They reveal methodological issues including teacher-centred approaches and limited sampling. Assessment challenges include reliance on self-reported data and lack of control groups. Studies also show disparities between student confidence and actual industry requirements. None addressed Blended Learning despite its growing post-pandemic importance. This underscores significant divergence from the current study's focus, which evaluates Blended Learning through authentic vocational contexts with systematic stakeholder perspectives, contributing methodological rigour to this underexplored field.

2.2.2 Vocational English in Blended Learning Contexts

Five studies examined vocational English within Blended Learning frameworks, demonstrating promising outcomes but with constraints affecting generalisability, regardless of methodological approach. Writing skills development showed positive results through technology-enhanced approaches. Imelda et al. (2019) conducted a quasi-experimental study with 61

Indonesian vocational students (31 experimental, 30 control) using writing tests and creativity questionnaires, examining how process writing combined with video-based mobile learning affected writing skills, finding the method significantly improved performance. However, generalisability is constrained by narrow focus on one school and specific text type. Mauludin et al. (2025) investigated WhatsApp for mobile-mediated dynamic assessment to enhance ESP writing skills among Indonesian vocational students through mixed-methods research. The approach significantly improved writing by providing convenient, less intimidating environments for feedback and collaboration. While offering valuable insights into using mobile technology to provide feedback and scaffolding when classroom time is limited, the small sample size (15 experimental and 16 control), brief four-week duration, and specific context limit generalisability.

Communication competency studies revealed positive platform adoption but highlighted that effectiveness depends on teacher competence. Chen and Lee (2024) explored 57 Japanese vocational students' perceptions of Blended Learning for English Communication Skills through mixed-methods case study – using questionnaires and interviews – grounded in Technology Acceptance Model (TAM) and Activity Theory (AT). They reported positive attitudes with high scores for perceived usefulness, ease of use, and satisfaction with user-friendly LMS. However, credibility and generalisability are undermined by heavy reliance on self-reported data. Marwan and Wahyudi (2025) explored Indonesian vocational students' use of Cambridge English online platform for independent learning outside class through a phenomenological qualitative study involving 40 students and two teachers. They found positive perceptions among engineering programme students with limited formal English instruction (once weekly). However, the platform's effectiveness depended heavily on teachers' pedagogical competence, with inconsistent platform feature use and overreliance on native-language instruction, underscoring that technology alone is insufficient without skilled implementation. The study provides useful insights into platform adoption but remains limited to describing user perceptions of the

platform without evaluating the actual effectiveness of Blended Learning implementation.

Jiang et al. (2024) investigated systematically designed, five-step Small Private Online Course (SPOC)-based blended teaching to promote deep learning among Chinese higher vocational EFL students through quasi-experimental study with 90 participants (45 experimental, 45 control). Experimental groups showed significantly greater improvement in knowledge acquisition, comprehension, analysis, and overall satisfaction compared to control groups. The study's strength lies in theoretically grounded framework (based on deep learning theory and Bloom's taxonomy) targeting higher-order cognitive skills. However, reliability is limited by potential instructor bias as the same teacher taught both groups. Also, focus on Chinese vocational students limits cross-cultural generalisability.

These vocational English Blended Learning studies show promising outcomes across Indonesian, Japanese, and Chinese vocational settings while demonstrating positive effects on writing skills, communication competencies, and platform adoption. However, none are evaluative studies; Chen and Lee's explanatory study focuses on one English oral communication course whereas interventionist studies by Imelda, Jiang, and Mauludin aim to prove intervention effectiveness, and Marwan and Wahyudi's study describes platform implementation. Unlike interventionist studies that aim to prove effectiveness, evaluative studies take neutral positions focusing on understanding rather than proving success. The current study addresses this underexplored area by systematically evaluating Blended Learning implementation in authentic Saudi vocational training with comprehensive stakeholder perspectives across three English skill types: oral communication, written communication, and technical vocabulary.

2.3. Evaluating Educational Models

To address this third notion, evaluating educational models, and how it was investigated in existing research, I searched for ([evaluative OR evaluating OR

evaluation] AND English AND [second OR foreign] AND language AND technology) within article titles, abstracts, and keywords. The search returned 153 documents. Upon initial screening, I excluded 83 studies that I identified as irrelevant to the current research for different reasons.

- Six studies were non-empirical (e.g., literature review, position paper).
- Five studies were prescriptions for educational procedures (e.g., design principles for a coursebook; how teachers can detect AI-generated texts brought by their students).
- Fourteen studies addressed subjects outside the focus of the current research (e.g., cyberbullying; diversity and inclusion among students; adherence of research papers to quality standards).
- Twenty-one studies presented descriptions of educational phenomena (e.g., teacher engagement with text adaptation; media literacy skills in online learning; writing anxiety when using ChatGPT).
- Thirty-seven studies were interventionist, examining proposals that address specific educational variables (e.g., developing an instrument for evaluating EFL learners' new media literacy; investigating the impact of automated evaluation of phonetic accuracy using speech recognition technology on pronunciation skills; examining the influence of automated writing evaluation feedback on students' engagement).

Upon further examination, I excluded 49 more studies that were marginally related to the current research for the following reasons:

- Six studies evaluated the implementation of educational technology in general.
- Six studies evaluated certain educational phenomena within technological contexts (e.g., social networking, cognitive engagement).

- Thirty-seven studies evaluated certain technological tools or devices (e.g., platforms, chatbots).

I found the remaining 21 studies relevant to the current research, so I discuss them in detail in this section. First, I classified them into five categories. The first category consisted of four studies that evaluated online/distance instruction. The second category consisted of three studies that evaluated collaborative forms of online instruction. The third category consists of three studies that evaluated online assessment. The fourth category consisted of six studies that evaluated courses or curricula. The fifth category consisted of five studies that evaluated other methods of technology-enhanced instruction. In the following lines I discuss each of these categories in detail.

2.3.1 Evaluating Online/Distance Instruction

Four studies examined online and distance instruction effectiveness across different contexts, demonstrating positive outcomes while revealing methodological limitations. Strong evidence from China came from Zou et al.'s (2021) mixed-methods investigation of 181 university EFL teachers and 213 students during COVID-19 using questionnaires and interviews. Their TAM and Technological, Pedagogical, and Content Knowledge (TPACK) framework analysis revealed that 74.18% of students perceived online teaching as effective, with positive correlations between effectiveness and teacher confidence. Both groups reported satisfaction, and the study identified teacher training as crucial. However, the crisis context may have inflated positive perceptions out of necessity, while lack of control groups prevents broader conclusions beyond ERT scenarios.

Yasin et al. (2022) surveyed 250 Jordanian engineering and IT students to assess an online technical communication course against Accreditation Board for Engineering and Technology (ABET) outcomes. Results indicated high learning outcome achievement with strong correlations between self-efficacy and both competencies and outcomes. Performance was significantly influenced by gender, field of study, GPA, and English certification. The

substantial sample and accreditation focus provide strengths, though reliance on self-reported data from a single university limits generalisability.

Gromoglasova et al.'s (2022) study of 110 Russian International Relations students explored flipped classroom distance learning using questionnaires with both open and closed questions. Participants valued video-based pre-class activities and collaborative discussions, reporting improvements in the 4Cs (communication, collaboration, creativity, critical thinking) alongside enhanced self-study skills. Challenges included time-consuming assignments and absent face-to-face interaction. The specific COVID-19 context and single-university focus limit applicability, while the absence of control groups and reliance on self-reported data from one source present methodological limitations.

Nusong and Watanapokakul's (2025) mixed-methods investigation of Blended Learning in an EFL course with 194 Thai undergraduates – using pre-/post-testing, questionnaires, and interviews – found significant English proficiency improvements post-intervention. Student attitudes were highly positive, valuing flexibility and accessibility. Challenges included technical issues, platform usability, and high anxiety levels. The single-group design without control groups limits causal claims about Blended Learning effectiveness, while focusing on one university and omitting teacher perspectives constrains generalisability.

These studies demonstrate generally positive outcomes across China, Jordan, Russia, and Thailand, with student satisfaction and perceived effectiveness evident. Teacher confidence and self-efficacy arise as crucial factors. However, pandemic contexts, absent control groups, and reliance on self-reported data limit validity. The current vocational study contributes by evaluating authentic workplace-oriented English training through systematic stakeholder analysis rather than ERT scenarios.

2.3.2 Evaluating Collaborative Forms of Online Instruction

Three studies examined collaborative online instruction across varied contexts, revealing mixed implementation success despite positive perceptions. Wang's

(2021) evaluation of blended collaborative teaching utilised recommendation algorithms and graph neural networks to collect engagement, completion, interaction, and effectiveness data. The study of 50 Chinese EFL students combined quantitative performance evaluation with qualitative analysis of teaching effectiveness, though specific details about the qualitative data collection methods are not clearly specified. Results indicated improved teaching quality and teacher-student interaction. However, the research focus seems more technological than educational, with limited explanation of the pedagogical process by which teachers translate algorithmic recommendations into instructional decisions.

Using qualitative open-ended questionnaires, Butarbutar et al.'s (2023) study of three Indonesian universities provides strong evidence of teacher and student perceptions regarding online collaborative learning (OCL) for EFL speaking in rural areas. Both groups held positive perceptions: teachers valued effectiveness and engagement whereas students reported social, psychological, and skills benefits. However, implementation barriers surfaced including poor internet connectivity, free-riders, and technological unfamiliarity. The findings highlight that persistent infrastructure and training challenges require systematic institutional support, not merely pedagogical solutions, for OCL sustainability. While usefully addressing gaps in resource-constrained rural contexts, broader applicability remains limited by the small sample (10 students, five teachers).

Aubrey and Chung's (2023) study of 42 Hong Kong English teacher education students – using questionnaires, paired t-tests, and interviews – demonstrated that an online community of practice significantly enhanced positive research attitudes compared to traditional lectures. Theoretically grounded in Wenger's communities of practice and Bandura's self-efficacy theory, the study offers a scalable professional development model. However, broader applicability is constrained by a sample from a single university and brief eight-week duration. Also, reliance on self-reported data without longitudinal follow-up limits assessment of actual behavioural changes.

These collaborative online instruction evaluations reveal positive perceptions and enhanced engagement across China, Indonesia, and Hong Kong, but acknowledge significant barriers including poor infrastructure, technological unfamiliarity, and free-rider problems. Research limitations include small samples and brief interventions, restricting generalisability. The current study contributes by examining collaborative elements within authentic workplace training contexts, addressing implementation challenges through systematic multi-stakeholder evaluation rather than theoretical models alone.

2.3.3 Evaluating Online Assessment

Three studies examined online assessment effectiveness across diverse educational contexts, revealing mixed acceptance and outcomes while highlighting persistent implementation challenges. Strong empirical evidence came from Ghouali and Ruiz-Cecilia's (2021) randomised study of 42 Algerian EFL students, using pre-test and post-test writing assessments, which demonstrated that Moodle-based e-assessment significantly improved writing scores compared to control groups. Results were attributed to detailed online feedback, tailored remedial materials, and increased student motivation, though some participants exhibited 'Moodle phobia', indicating technological acceptance challenges. The research's strength lies in its rigorous experimental design and focus on assessment as pedagogical support. However, broader applicability is constrained by its single context.

Mixed teacher perceptions were documented through Alzubi et al.'s (2022) descriptive-diagnostic study investigating Saudi EFL teachers' views of online versus offline assessment methods. Results revealed significant preferences for offline assessments, while online methods received only moderate ratings. Constraints included cheating concerns, limited IT exposure, and technological unfamiliarity. Offline assessment challenges included poor methodological awareness and classroom management difficulties. The mixed-methods approach – questionnaire, 61 teachers and interview, 12 teachers – provides useful insights, though single-institution focus and self-reported data limit generalisability. The research occurred during post-COVID transitions when

teachers lacked adequate online training, suggesting preferences may reflect training gaps rather than inherent online assessment limitations.

The most comprehensive approach examined alternative assessment methods through Ponomarenko et al.'s (2023) experiment with 96 Russian science undergraduates developing Business English skills. Methods included case studies and e-portfolios, measured through pre- and post-intervention proficiency assessments and student surveys, producing significant results showing dramatic decreases in low-level students and increases in high-level achievers. The 'assessment as learning' approach effectively built linguistic and professional competencies, with 85% reporting improved confidence. However, applicability remains limited by single-institution and science-specific focus, while lacking detailed implementation procedures.

These online assessment evaluations reveal mixed effectiveness and acceptance patterns. Research from Algeria, Saudi Arabia, and Russia demonstrates improved learning outcomes through detailed feedback and alternative methods, yet persistent challenges include technological acceptance barriers, academic integrity concerns, and instructor unfamiliarity. Methodological limitations were due to limited scope. The current vocational study contributes by examining stakeholder experiences within authentic workplace training contexts, providing comprehensive multi-stakeholder perspectives to complement existing quantitative assessment measures.

2.3.4 Evaluating Technology-Enhanced Curricula

Six studies examined technology-enhanced curriculum evaluation across diverse educational contexts, revealing mixed implementation success and highlighting persistent gaps in digital integration effectiveness. Strong empirical evidence emerged from Nguyen et al.'s (2025) investigation of MyELT LMS implementation with 2,000 Vietnamese university students. The study combined quantitative analysis of academic records with qualitative surveys and interviews of 220 participants. Results demonstrated significant performance improvements, with MyELT users outperforming non-users in both process and

final examinations. Qualitative feedback revealed appreciation for system flexibility and reduced instructor workloads. However, technical difficulties, navigation challenges, and insufficient training created substantial barriers. The study's limitation is its specific context and potential instructor bias.

Moderate satisfaction patterns were documented through Al Shdaifat et al.'s (2022) evaluation of Jordan's COVID-19 English e-curriculum using 500 teacher responses. Analysis using the Zais curriculum evaluation model (a framework examining curriculum domains such as objectives, content, and teaching methods) revealed highest ratings for 'Electronic Assessment' and 'Content', whereas 'Objectives' and 'Technological Teaching Aids' ranked lowest, indicating poor goal alignment and integration issues. The research provides robust baseline data for policymakers, though reliance on questionnaires rather than classroom observation limits broader implications by measuring perceived appropriateness instead of actual learning effectiveness.

Smaller-scale investigations showed mixed results across varied contexts. Mai et al.'s (2022) exploratory case study of 24 Vietnamese EFL teachers evaluating a 20-hour online professional development course demonstrated positive perceptions regarding TPACK development for ERT. Participants valued modelled practices and extended scheduling, while teachers with limited technological knowledge felt overwhelmed. Reliance solely on self-reported surveys without observation, control groups, or longitudinal follow-up prevents verification of sustained implementation. Qualitative insights came from Mali's (2024) study of seven Indonesian EFL graduate students, using semi-structured interviews and reflective essays, which revealed authentic technology-integrated tasks as simultaneously most useful and challenging. Literature reviews and workshop reports offered inconsistent benefits including community service and publication opportunities. The single-university sample prevents broader application while the researcher's dual instructor-evaluator role introduces potential bias. Reid and Ivenz's (2025) participatory action research adapted Intercultural Communication courses for 25 Slovak teacher trainees using a cyclical four-stage process (planning, acting, observing, and reflecting) that combined Moodle materials with Microsoft Teams discussions.

Data were collected through pre- and post-course questionnaires and student reflections. High student satisfaction and reported intercultural awareness growth were evident, with preferences for written over oral expression. However, small sample size limits generalisability while lacking comparison to traditional delivery or long-term assessment. Systematic material analysis was provided by Nguyen et al.'s (2024) evaluation of email pragmatic instruction (how to write socially appropriate emails for different purposes) across 22 international English textbooks, revealing inadequate coverage with only 19.4% addressing email communication. Materials emphasised linguistic over sociocultural aspects while omitting cross-cultural variation discussions. Though the comprehensive framework represents strength, focus solely on published materials (2016-2019) ignores classroom implementation and current digital trends.

These technology-enhanced curriculum evaluations reveal moderate satisfaction with digital integration across Jordan, Vietnam, Indonesia, and Slovakia, highlighting gaps in teacher training and technological support, with concerns about goal alignment in some contexts. While the MyELT implementation demonstrated learning improvements, technical difficulties and insufficient training remained barriers across multiple contexts. The current study evaluates technology integration within authentic workplace training contexts, addressing both pedagogical effectiveness and practical implementation challenges through comprehensive multi-stakeholder analysis.

2.3.5 Evaluating Other Methods of Technology Enhanced Instruction

Five studies examined diverse technology-enhanced instructional methods across varied educational contexts, revealing that pedagogical effectiveness may depend more on appropriate tool selection for specific contexts and learning objectives than on assumed technological superiority. Strong empirical evidence came from Lebedieva et al.'s (2023) experiment with 186 Ukrainian students across Psychology, Choreography, and Visual Arts programmes using corpus linguistics methods. The experimental group, employing tools like Cambridge Learner Corpus and Wordsmith 5.0, demonstrated substantial score

improvements while the control group showed minimal gains. Expert evaluation and statistical analysis supported these findings, with 99% of participants desiring continued corpus materials use. The research provides compelling evidence for integrating corpus linguistics into professional communication curricula. However, the study's scope was limited, focusing on vocabulary acquisition rather than broader communicative skills.

Mixed effectiveness patterns were documented through Ölmez and Can Aran's (2025) quasi-experimental study of 80 Turkish high school students, investigating the impact of digital storytelling on English writing skills and anxiety. The experimental group receiving eight weeks of digital storytelling instruction showed significant writing improvements attributed to continuous feedback and revision processes, while no quantitative anxiety reduction was observed. However, qualitative interviews revealed reduced anxiety and increased motivation among most participants. The robust mixed-methods design strengthens findings, though single-school context limits generalisability.

Contrasting results were revealed from modality comparison research of Mohammadi Zenouzagh et al. (2023), an experimental study of 40 Iranian EFL students randomly assigned to text-based computer-mediated communication (CMC) or multimodal CMC groups. Using learner autonomy questionnaires, conversation analysis, and writing assessments, they found text-based CMC superior for developing learner autonomy, behavioural/cognitive engagement, and writing quality, while multimodal CMC fostered greater emotional and social engagement. The research challenges assumptions about multimodal tools' inherent superiority, though the single context limits broader application.

Temporal learning effects were examined through Muqaibal et al.'s (2023) quasi-experimental investigation of vocabulary learning using Quizlet with 96 low-proficiency Omani learners. Both one-day and seven-day spaced practice groups significantly outperformed controls but performed equally to each other, challenging traditional spacing effect assumptions. Results suggest practice quality on well-designed tools may outweigh temporal distribution for such learners. The delayed post-test design measuring retention after four and 28

days represents strength, though applicability remains limited by specific A1 proficiency level and cultural context.

Divergent perspectives were revealed through Jankauskaitė-Jokūbaitienė's (2023) qualitative case study, which employed an open-ended survey across a brief 90-minute timeframe, investigating 28 Lithuanian secondary students' experiences using digital video creation for vocabulary learning. Results revealed that 59% participants reported enhanced memorisation through visual associations while 15% cited significant time constraints as obstacles. Infrastructure barriers including slow computers and limited ICT skills potentially undermined effectiveness. The authentic classroom setting using accessible software provides real-world validity, though the single-school sample and brief implementation period limit applicability.

These technology-enhanced instruction evaluations from Lithuania, Iran, Ukraine, Oman, and Turkey demonstrate varied effectiveness depending on pedagogical goals and implementation contexts. Infrastructure barriers and learner proficiency levels significantly impact outcomes, suggesting tool selection should align with specific learning objectives rather than assumed technological advancement. The current study contributes by evaluating technology integration within authentic workplace English training contexts, examining how tools support vocational competencies rather than general language skills through systematic multi-stakeholder perspectives.

2.4. Contribution to Existing Research

This literature review examined 63 studies across three interconnected domains: Blended Learning (28 studies), vocational English (14 studies), and evaluation of educational models (21 studies). Through systematic analysis of these bodies of work, several insights can be derived that inform the direction and rationale for this research, as explained below.

2.4.1 Blended Learning: Beyond Simple Modality Comparison

The reviewed Blended Learning literature reveals a predominant focus on comparative effectiveness rather than understanding the underlying mechanisms that make blended approaches successful. While studies like Ahmed et al. (2024) and Tretyakova et al. (2023) demonstrate significant improvements in specific contexts (nursing English, economics vocabulary), they offer limited insight into why these improvements occur or how the integration of modalities creates unique learning opportunities. Moreover, the emphasis on quantitative comparisons has come at the expense of qualitative investigation of learner experiences and the complex interplay between in-class and online components. The comparative studies reveal a significant pattern: contextual factors appear more deterministic than modality choice itself. Research consistently shows that infrastructure, pedagogical design, and learner characteristics influence outcomes more substantially than whether instruction is delivered through blended, traditional, or fully online formats. This suggests that the field's preoccupation with proving Blended Learning's superiority may be misguided; instead, attention should focus on understanding how specific design features support particular learning goals.

2.4.2 Vocational English: The Theory-Practice Divide

The reviewed research on vocational English reveals a disconnect between what is taught in the classroom and what is needed in the workplace. For example, research by Sislioglu and Demirel (2015) and Al Shdaifat et al. (2022) highlights inadequate attention to authentic workplace communication patterns, while Nguyen et al.'s (2024) study reveals insufficient consideration of sociocultural aspects of professional interaction. Another issue is that many vocational English studies have methodological flaws. They rely too much on self-reported data, rarely use control groups, and fail to follow up on how learners perform in real jobs. Because of these weaknesses, the field lacks solid evidence to support the recommended teaching approaches, providing a poor foundation for educational decisions. The reviewed literature also shows a bias toward treating language learning as an individual cognitive process, overlooking the social aspects of workplace communication. Because this view ignores how skills are developed through active participation in work

environments, the results of training often do not transfer effectively to real-world settings.

2.4.3 Educational Evaluation: The Measurement-Improvement Dilemma

The reviewed evaluation literature reveals an emphasis on measurement over improvement. While frameworks like Kirkpatrick and Kirkpatrick (2006) provide systematic approaches to assessing training effectiveness, they prioritise accountability and outcome measurement rather than understanding how programmes can be enhanced. In other words, more effort is devoted to proving effectiveness than understanding how to make programmes more effective. The field would benefit from approaches that position evaluation as a developmental process rather than a summative judgement, particularly in rapidly evolving professional domains where communication demands change continuously.

2.4.4 Identified Research Gaps and Their Significance

By consolidating all the reviewed studies according to the additional notions each study addresses beyond its core focus, the resulting intersections of the studies are illustrated in Figure 1 (see Appendix 1 for more details).

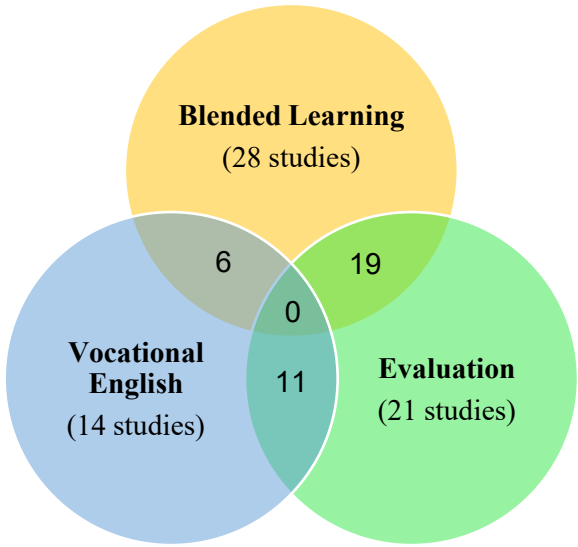

Figure 1: Intersections of Studies

As demonstrated in Figure 1, no existing studies examine the intersection of Blended Learning, vocational English, and educational evaluation. This represents more than a simple literature gap – it reflects a disconnect between fields that limits understanding of how these interconnected areas influence each other. Blended Learning research rarely considers vocational specificity; vocational English research seldom addresses pedagogical modality; evaluation research infrequently examines both simultaneously.

The reviewed literature demonstrates insufficient attention to how authentic workplace environments influence learning design and outcomes. Most studies occur in conventional educational settings, examining generic language skills rather than investigating how specific professional contexts shape both learning processes and evaluation approaches. Moreover, the literature shows limited investigation of multiple stakeholder perspectives, particularly in vocational contexts where teachers, learners, and industry representatives bring different but equally valid viewpoints to understanding programme effectiveness. Additionally, the literature emphasises outcome measurement over process understanding. Little research examines how Blended Learning supports vocational skill development or why certain design features prove more effective than others in specific contexts.

2.4.5 Research Departure Points and Directions

These insights and gaps suggest several productive departure points for advancing understanding in this field. One direction is moving beyond comparative effectiveness studies towards process-oriented investigation that examines how different components of Blended Learning interact to support authentic skill development. This requires qualitative methodologies that can capture the nuanced experiences of multiple stakeholders. Another direction is developing understanding of how specific professional contexts influence both learning design and evaluation approaches. Rather than seeking universal principles, research should examine how contextual factors shape effective practice. An additional direction is examining Blended Learning, vocational English, and evaluation as interconnected rather than separate phenomena. This requires interdisciplinary approaches that can address the complexity of contemporary vocational education. Still another direction is investigating how training approaches can better prepare learners for actual workplace communication demands, moving beyond simulation towards genuine industry engagement.

2.4.6 Positioning the Current Study

This research addresses these concerns by examining the intersection of Blended Learning, vocational English, and evaluation within an authentic industrial training context. Rather than seeking to prove the superiority of particular approaches, it investigates how a specific Blended Learning model supports vocational English development and why certain features prove more effective than others. The study's focus on the oil and gas training context provides an opportunity to examine how industry-specific communication demands influence learning design and evaluation approaches. By employing qualitative methodology grounded in Situated Learning theory, the research can capture the complex processes through which learners develop professional communication competence within blended educational environments.

The systematic examination of multiple stakeholder perspectives – including current learners, teachers, and former students now in technical training – enables investigation of both immediate learning experiences and longer-term skill transfer to workplace contexts. This approach positions evaluation as a developmental tool for programme enhancement rather than simply an accountability mechanism.

By addressing these underexplored areas, this research aims to contribute both theoretical understanding and practical guidance for designing more effective vocational language training approaches. The insights generated should inform not only Blended Learning implementation but also broader questions about how educational approaches can better prepare learners for the communication demands of contemporary professional environments.

Chapter 3: Theoretical Framework

This chapter outlines the theoretical foundations that underpin the current study, providing a conceptual lens through which the research problem is examined and interpreted. Key theories and concepts guiding the investigation are articulated, explaining their relevance and clarifying how they inform the study's design and analysis.

According to Anfara (2008), theory, which includes any general set of ideas that guide action, profoundly affects the conduct of qualitative research. In the current study, theory plays a fundamental role impacting every research aspect, form framing the research questions to the collection and analysis of the data. In the context of technology-enhanced learning (TEL), Bligh (2020) underscores the need for context-specific frameworks that align with the unique demands of educational research, and in my own research I subscribe to this framing of a theoretical framework as something constructed for a particular research endeavour. While my theoretical framework is specific to the problem opening the thesis, it borrows from stable, reliable, and suited theoretical principles and notions from established sources, which I set out below.

In the following sections of this chapter, I start by discussing Social Constructivism as the grand theory for the research and how it relates to the core argument of the study. Then I introduce Situated Learning as the mid-range theory, linking it to the context and unit of analysis, and setting out how it informs design, data collection, and data analysis.

3.1 Grand Theory: Social Constructivism

Social Constructivism challenges the notion of knowledge as a fixed, objective entity and emphasises its social and interactive construction. Rooted in Vygotsky's (1978) work, this theory argues that understanding is not passively absorbed but actively constructed through social interaction and cultural experiences (Kiraly & Signer, 2017; Pritchard & Woollard, 2010; Stabile & Ershler, 2016). Brown et al. (1989) critique the separation between knowing

and doing as “profoundly misleading” (p. 2), arguing that knowing is inextricably situated within its physical and social context and cannot be extracted without transformation. The constructivist paradigm assumes multiple realities, co-created understandings between knower and respondent, and naturalistic methodological procedures (Denzin & Lincoln, 2018, p. 57). Central to this approach is the role of social interaction in shaping understanding – through dialogue, explanation, and meaning negotiation, individuals develop their worldview, with language serving as a crucial medium for sharing perspectives and co-constructing knowledge (Berger & Luckmann, 1967; Guile & Unwin, 2019).

3.1.1 Key Principles of Social Constructivism

Below are some key principles of Social Constructivism that are relevant to the current research.

3.1.1.1 Knowledge Is Constructed, Not Transmitted

Social constructivists view knowledge as actively built by learners, not passively received from teachers. Learning experiences enable this construction through social interaction and engagement with the environment (Akpan et al., 2020). In the context of the Blended Learning model under investigation, the construction of knowledge is central to how apprentice trainees develop vocational English skills. The Blended Learning model, with its combination of in-class and online activities, avails diverse opportunities for trainees to construct knowledge in ways that are relevant to their vocational goals.

3.1.1.2 Active Learners, Not Passive Receivers

Social Constructivism emphasises the learner’s active role in constructing knowledge. Learners are not simply empty vessels waiting to be filled with information. Instead, they actively engage with the world around them, interpreting information, testing ideas, and building understanding through experience (Pritchard & Woollard, 2010). This perspective shifts the focus from teacher-centred instruction to learner-centred processes, where students play a

key role in making sense of new information. This concept is also relevant to the context of the current study. Rather than passively receiving information from teachers, students actively engage with learning materials, tasks, and discussions both in-class and online.

3.1.1.3 Social Interaction Is Fundamental to Learning

Social constructivists argue that knowledge is not pre-existing or independent of the social world. They consider social interaction to be essential for knowledge construction as it helps us to challenge our assumptions, identify biases, and build a more comprehensive understanding of the world (Berger & Luckmann, 1967). In other words, we learn and make sense of the world through our interactions with others. Our social groups, cultures, and historical contexts all play a role in shaping what we know and how we know it (Hickman et al., 2010). In educational settings, knowledge is not simply transmitted from teacher to student; learners actively construct meaning by interacting with others, sharing ideas, and engaging in dialogue (Billett & Choy, 2013). Through discussions, debates, and collaborations, they refine their understanding, learn from different perspectives, challenge assumptions, arrive at shared meanings, and develop more robust knowledge structures (Saleem et al., 2021). This concept is highly relevant to the target Blended Learning context, where social interaction occurs both in in-class and online settings. In the vocational training organisation under study, apprentice trainees interact with teachers and peers during in-class sessions and through online platforms like WhatsApp. These interactions enable trainees to collaboratively construct knowledge, share insights, and refine their understanding of vocational English skills.

3.1.1.4 The Role of Language

Since language is the primary tool that we use to construct and share knowledge, social constructivists highlight the importance of language in shaping our understanding of reality (Berger & Luckmann, 1967). Through discussions, explanations, collaboration, and debates, learners use language to articulate ideas, negotiate meaning, and refine their understanding to co-

construct knowledge with others. In the context of the Blended Learning model under investigation, language plays a dual role as both the medium of instruction and the target skill being developed. Apprentice trainees use language to engage in discussions, collaborate on tasks, and articulate their understanding of vocational English concepts. By fostering meaningful language use across both in-class and online environments, the Blended Learning model exemplifies the social constructivist view of language as a tool for knowledge construction and sharing.

3.1.1.5 Zone of Proximal Development

Vygotsky (1978) stressed the Zone of Proximal Development (ZPD), which refers to the gap between what a learner can do independently and what they can achieve with the help of a more knowledgeable other such as the teacher. Social interaction, particularly with more knowledgeable peers or teachers, helps learners bridge this gap and construct new knowledge. In the context of the Blended Learning model under investigation, the ZPD plays a critical role in how apprentice trainees develop vocational English skills. During in-class sessions, teachers provide scaffolding by modelling language use, offering feedback, and guiding trainees through complex tasks, such as technical writing or oral presentations. This support helps trainees operate within their ZPD, enabling them to achieve more than they could independently. Meanwhile, the online components allow trainees to practise and consolidate their knowledge through self-directed exercises, gradually expanding their ZPD.

3.1.2 Roles of Teachers and Students

Social Constructivism emphasises a shift from teacher-centred to learner-centred instruction (Guile & Unwin, 2019; Pritchard & Woollard, 2010). In the social perspective, according to McLoughlin and Luca (2006), students and teachers share responsibility in supporting knowledge building. Teachers must lessen control by providing supportive rather than intervening learning environments, and students must assume more responsibility by making contributions to collective knowledge rather than being focused on acquiring

established knowledge. In this perspective, knowledge creation is collaborative, dynamic, and adaptive rather than static, and the created knowledge becomes a foundation for more advanced learning. Gawande and Al-Senaidi (2015) argue that experience is an important component in constructivist theories of learning, as adults bring their prior experiences with them into the learning environment, and these experiences serve as a building block for not only their learning but also that of other learners in that situation. Teachers act as facilitators, guiding students through self-directed learning activities, providing scaffolding within the ZPD (Bates, 2016), and mediating discussions that encourage students to construct their own understanding as relevant to their needs. Students also take an active role in their learning. They contribute to discussions, engage in collaborative tasks, and reflect on their learning experiences.

3.1.3 Social Constructivism and Social Constructionism

Social Constructionism is a philosophical perspective that is often confused with Social Constructivism. Indeed, some use the two concepts interchangeably (Bryman & Bell, 2011; Charmaz, 2014). While both are concerned with the social construction of reality and how social interactions shape our understanding of the world, Social Constructivism is concerned with the individuals and how they formulate their mental understanding of the world through experience, but Social Constructionism has a more social focus, placing great emphasis on everyday interactions between people and how they use language to construct their reality (Andrews, 2012). In other words, Social Constructivism looks inward to understand how each individual's cognitive processes guide the construction of their own understanding of reality, which means there could be multiple interpretations of any investigated phenomenon related to human activity. Social Constructionism, on the other hand, is outward-looking, focusing on how a collective understanding of activities is interactively co-constructed through dialogic, social, and relational processes (Crotty, 1998). This distinction highlights the dual focus of constructivist approaches, emphasising both individual meaning-making and the social processes that shape shared understandings.

3.1.4 Criticism of Social Constructivism

Social Constructivism, despite being influential, is not without critics. Some argue that it undermines the existence of an objective reality altogether (Speed, 1991). Others claim that it can downplay the role of individual agency in knowledge construction (Alanazi, 2016). On the other hand, while Social Constructivism emphasises the active role of students in constructing knowledge, this perspective has been critiqued for contributing to the phenomenon of “learnification” (Biesta, 2009), which refers to the reduction of education to a process of individual learning, often at the expense of broader educational purposes such as socialisation, qualification, and subjectification (cultivating independent, responsible learners). Biesta’s framework challenges this individualistic approach by asserting that effective education requires more than facilitating student-centred learning; it demands that teachers actively interrupt learners’ existing ways of thinking and being through purposeful pedagogical interventions. Rather than simply creating conditions for learning, teachers must take responsibility for determining what knowledge, values, and ways of being are worth introducing to students. In the context of TEL, this critique is particularly relevant, as the focus on learner-centred approaches can sometimes de-emphasise the role of teachers and the structured guidance they provide (Bayne, 2015). Also in VET, where the development of specific skills and competencies is crucial, an overemphasis on self-directed learning risks neglecting the importance of expert-led instruction and the contextualised knowledge that teachers bring (Orr, 2019).

These critiques, however, do not undermine the value of Social Constructivism but rather highlight the need for a balanced approach. The current study examines how the target Blended Learning model addresses this balance through the integration of teacher-led scaffolding with opportunities for collaborative and self-directed learning.

3.1.5 Relevance of Social Constructivism to the Current Research

According to Fuller (2007), a social theory has appeal for those interested in researching and understanding learning at work, and conceptualising learning as a social practice provides a strong theoretical foundation from which to research learning in workplace settings. Blended Learning in vocational contexts, which is the focus of the current study, provides a relevant context for investigating social constructivist learning. While classroom sessions present a good venue for collaborative activities and feedback from teachers and peers, self-directed learning activities can provide opportunities for students to explore topics independently, deepening their understanding at their own pace to enhance the knowledge they have socially constructed in collaborative settings.

3.1.5.1 Social Constructivism and the Design of the Current Research

The current research design leveraged the strengths of Social Constructivism by focusing on the interactions and experiences of participants within the Blended Learning environment, while acknowledging the complex theoretical mechanisms that underpin collaborative knowledge construction. Social Constructivism provided not merely a general orientation towards social learning, but a specific lens for examining how vocational English skills are developed through structured social interaction and scaffolded participation.

Central to the research design was Vygotsky's concept of the Zone of Proximal Development (ZPD), which guided both data collection and analysis strategies. Interviewing teachers offered valuable insights into how they recognised individual students' ZPDs and implemented targeted scaffolding strategies within the Blended Learning model. The interviews explored how teachers recognised the gap between what students could achieve independently and what they could carry out with guidance, particularly in developing workplace-specific English competencies. This theoretical focus enabled me to examine not just whether scaffolding occurred, but how teachers navigated the complex process of providing enough support to facilitate learning without creating dependency. The one-to-one interview format was crucial here, as it allowed teachers to reflect on their scaffolding practices and articulate the decision-making processes involved in designing the learning experiences,

understanding, and responding to individual students' learning needs. This individual reflection space enabled teachers to share their professional knowledge about effective scaffolding in ways that might have been inhibited in group settings where professional vulnerability could be exposed.

The research design also drew on social constructivist principles of collaborative knowledge construction, where understanding is formulated through dialogue and negotiation of meaning rather than simple information exchange. The choice of focus groups over individual interviews for students was informed by the social constructivist theory. The group dynamic itself mirrored the collaborative learning processes under investigation. The focus groups were designed to capture evidence of students actively building understanding together – demonstrating how they build understanding through interaction, negotiate different perspectives on learning experiences, and collectively construct meaning about the relevance of English skills to their future careers. This approach allowed me to observe social constructivist learning in action, rather than simply gathering individual opinions about the Blended Learning model.

Email-based qualitative questionnaires served a complementary function by capturing individual reflection processes that Social Constructivism recognises as essential for internalising socially constructed knowledge. While Social Constructivism emphasises the social origins of learning, it also acknowledges that individuals must personally process and integrate collaborative insights, reflecting Vygotsky's (1978) view that learning occurs first at the social level before being internalised at the individual level. The questionnaires provided a space for participants to reflect on their learning experiences individually, articulating personal understanding that had developed through social interaction. This method was particularly valuable for capturing how participants had internalised collaborative learning experiences and constructed personal meaning from social encounters within the Blended Learning environment.

This theoretical grounding enabled the research to explore not just whether the Blended Learning model was effective, but how it fostered the social interaction,

scaffolded participation, and collaborative knowledge construction that social constructivist theory suggests are fundamental to meaningful learning. The design thus provided a comprehensive framework for understanding how students construct job-relevant English skills within a Blended Learning environment through the complex interplay of teacher guidance, peer collaboration, and self-directed reflection.

The social constructivist theoretical framework also guided the analytical approach to understanding the data generated from these multiple methods. During the reflexive thematic analysis process, Social Constructivism provided a lens for interpreting how participants' experiences reflected knowledge construction processes. This theoretical lens was particularly valuable in the formulation of themes around collaborative learning, peer interaction, and the social dynamics of the learning environment, ensuring that the analysis focused on how participants built understanding together rather than just looking at their individual experiences.

3.2 Mid-range Theory: Situated Learning

The mid-range theory for this research is Situated Learning, which aligns with its grand theory of Social Constructivism. According to Kumar (2021), "situated cognition or learning is a concept advocated in social constructivist approaches and is a natural extension of the importance attached to the context, social and cultural, in which learning is believed to be born" (p. 13). A key factor in learning is the learners' prior knowledge and experience; these significantly affect how new material is perceived and understood. If this prior knowledge is ignored, there will be a mismatch between actual and intended learning outcomes. The situated perspective builds on this assumption, depicting learning as guided participation in sociocultural activity by which bridges are built between existing knowledge and new information (Hennessy, 1993).

Situated Learning was proposed by Lave and Wenger (1991) to describe learning in a community of practice, where learning and application occur in the same location. The community includes experienced masters and newcomers

who work together to solve problems, with learning highly influenced by socialisation and imitation (Brown, 2013). Situated Learning views knowledge as a relation between an individual and a social situation, considering learning as a largely social phenomenon resulting from interactions within a participation framework (Henning, 2004; Orey & Nelson, 1994). Contu & Willmott (2003) believe that Situated Learning focuses on learners' practices rather than mental processes, positioning learning within everyday work activities. Brown (2000) adds that tacit knowledge, which refers to the "know-how" and is shown in our work practices and actions when dealing with others, should be distributed as a "shared, socially constructed understanding that emerges from collaboration" (p. 66).

According to Collins, et al. (1989), learning is situated if it requires active participation in activities that encompass the to-be-learned knowledge. Within this framework, learning occurs through participation in communities of practice that include both experienced practitioners and peer learners working together to solve problems, with learning highly influenced by socialisation and imitation (Brown, 2013; Lave & Wenger, 1991). Teachers and experienced practitioners guide students to become full participants by creating authentic conditions for experience and practice, while peer learners contribute to collaborative knowledge construction through shared engagement in meaningful activities. Students reach new levels of understanding based on their experience as real practitioners (Besar, 2018; Contu & Willmott, 2003). Allal (2018) highlights bi-directional appropriation during teacher-learner interaction: as learners acquire new skills, teachers also adopt aspects of learners' actions into ongoing instruction.

3.2.1 Key Principles of Situated Learning

Below are some key principles of Situated Learning that are relevant to the current research.

3.2.1.1 Importance of Context

Situated Learning posits that knowledge is tied to the context in which it is developed and used, emphasising that decontextualised classroom learning is less effective (Brown, 2000; Brown et al., 1989; Kumar, 2021). Learning is not a separate activity but is situated within a specific context and social practices (Young, 2004). Context provides a network of tacit support that practitioners rely on, which is often missing in traditional educational settings (Allal, 2018). For example, in vocational training, learning technical skills in class without real-world application can fail to prepare trainees for their future workplaces.

Context served as a central analytical element in this study. Theoretical emphasis on context shaped data collection methods to capture participants' experiences within the vocational settings of oil and gas training. In the analysis phase, context provided a framework for assessing whether the Blended Learning model successfully bridges classroom learning and workplace application, specifically examining how contextualised learning experiences prepare trainees for their professional roles.

3.2.1.2 Authenticity As Key to Effective Learning

Authentic learning, a cornerstone of Situated Learning, emphasises real-world tasks and materials that reflect the ordinary practices of professional communities (Herrington & Oliver, 2000). Authentic activities enable learners to engage in meaningful, context-specific tasks that foster deep understanding (Brown et al., 1989). In vocational education, this means providing trainees with opportunities to use technical vocabulary, solve work-related problems, and collaborate in ways that reflect their future workplaces (Farley, 2016).

In this study, authenticity functioned as the primary analytical criterion for evaluating learning effectiveness. This theoretical focus on authenticity guided data collection to examine how learning activities connect to real workplace demands, and informed analysis by providing clear assessment criteria for meaningful, transferable learning outcomes aligned with professional requirements. Emphasis on authenticity enabled systematic evaluation of

whether the Blended Learning model successfully prepares trainees for actual professional communication challenges rather than abstract language skills.

3.2.1.3 Apprenticeship As a Learning Model

Apprenticeship is a cornerstone of Situated Learning, emphasising that learning occurs through participation in authentic, context-specific activities under the guidance of experienced practitioners (Lave & Wenger, 1991). In this model, the instructor acts as a mentor, demonstrating skills and strategies while gradually scaffolding the learner's progress toward independent problem-solving (Brown et al., 1989). Apprenticeship is particularly relevant in vocational education, where learning is closely tied to the demands of specific professions. For example, in vocational English training, apprenticeship enables trainees to watch and practise technical communication skills in work-related scenarios, such as writing reports or delivering presentations.

In this study, the apprenticeship model provides analytical criteria for evaluating how effectively the Blended Learning approach incorporates mentoring relationships and scaffolded progression. This theoretical lens enables examination of whether the model successfully enables learners' movement from guided practice to independent professional communication competence.

3.2.1.4 Communities of Practice

Communities of Practice (CoPs) are central to Situated Learning, emphasising that learning occurs through participation in shared, context-specific activities within a group (Lave & Wenger, 1991). CoPs are defined by mutual engagement, joint enterprise, and a shared repertoire of resources, which collectively enable members to construct knowledge through social interaction (Wenger, 1998). Newcomers to a CoP begin as peripheral participants, gradually moving toward full membership as they engage in the community's practices and adopt its norms (Henning, 2004). This process involves identity transformation, as learners develop a sense of belonging and competence within the community (Fuller, 2007). Wenger's thinking later evolved to consider "landscapes of practice" – recognising that learning often occurs across

multiple, interconnected communities rather than within single, bounded communities (Wenger-Trayner et al., 2014). This broader perspective acknowledges the complex, multi-community nature of professional learning environments.

CoPs are particularly relevant in vocational education, where learning is deeply embedded in professional practices. For example, in vocational English training, CoPs provide a framework for trainees to engage with peers and instructors, using technical vocabulary and communication skills in authentic work-related scenarios. CoPs are central to this study's theoretical framework because they offer a relevant analytical perspective for evaluating how the Blended Learning model creates collaborative learning environments that mirror workplace communities of practice. This theoretical lens guides data collection to examine social interaction patterns and informs analysis of how effectively the model fosters mutual engagement and knowledge sharing among participants.

3.2.1.5 Legitimate Peripheral Participation

Legitimate Peripheral Participation (LPP) is a key concept in Situated Learning, describing how newcomers to a community gradually become full participants through engagement in authentic activities (Lave & Wenger, 1991). LPP emphasises social interaction and mentorship, as newcomers learn by observing and interacting with more experienced members. Initially, newcomers take part in peripheral tasks, which allow them to see and learn the norms and practices of the community. Over time, as they gain competence and confidence, they take on more central roles (Henning, 2004). This process is particularly relevant in vocational training, where trainees (newcomers) learn from instructors (old-timers) in environments that simulate real-world workplaces. LPP forms a key component of this study's theoretical framework because it enables analytical examination of how the Blended Learning model incorporates scaffolding and gradual progression, providing criteria for assessing learners' movement from peripheral to full participation in their learning community.

3.2.1.6 Generalisability and Transfer of Learning

Situated Learning theory challenges the traditional view that knowledge can be abstracted and transferred across contexts, arguing that learning is deeply embedded in the situations in which it occurs (Lave & Wenger, 1991). While some critics argue that this limits the generalisability of knowledge, others suggest that transfer is possible when learning contexts share similar affordances and constraints (Allal, 2018). In vocational education, this means that skills learned in authentic, context-specific activities are more likely to transfer to real-world settings (Kumar, 2021). In this study, transferability serves as an analytical lens for evaluating whether skills developed through the Blended Learning model are applicable beyond the classroom, providing criteria for assessing how effectively authentic, context-specific learning prepares trainees for their professional roles. This approach aligns with Greeno's (1997) Situated Learning perspective that generality arises when learners develop the ability to participate effectively in interactions across a broad range of situations, rather than through the simple transfer of decontextualised knowledge.

3.2.2 Criticism of Situated Learning

While Situated Learning has been influential, it has also faced criticism for its theoretical and practical limitations. Anderson et al. (1996) describe four key claims of Situated Learning as overstated: (1) action is grounded in concrete situations, (2) knowledge does not transfer between tasks, (3) abstract training is ineffective, and (4) instruction must occur in complex social environments. They argue that these claims ignore the nuanced interplay between context-dependent and context-independent knowledge. The concept of CoPs has also been criticised. Fuller (2007) argues that the term "community" implies harmony and shared interests, overlooking the conflicts and power dynamics common in workplaces. Fuller highlights that even newcomers may have expertise in areas where old-timers lack proficiency. Contu and Willmott (2003) also critique CoPs for assuming consensus and coherence, ignoring the power struggles that can arise. Roberts (2006) further notes that communities of practice may become

static in terms of their knowledge base and resistant to change, with members likely to adopt knowledge that aligns with existing predispositions rather than knowledge that challenges current practices. These critiques suggest that the focus should shift from “community” to “practice,” to acknowledge the diversity and conflict inherent in real-world settings.

Apprenticeship has been questioned for its narrow representation of learning. Herrington and Oliver (2000) note that criticisms often stem from equating Situated Learning with traditional apprenticeship, which may not apply across cultures. Anderson et al. (1996) advocate for using authentic problems as an alternative, arguing that not all skills require social context for training. They suggest that breaking tasks into smaller components can enhance learning efficiency, as complex settings may overwhelm learners. Additionally, transfer of learning has been criticised for its unpredictability. Anderson et al. (1996) argue that transfer depends on factors like task similarity, so they recommend incorporating multiple examples and encouraging reflection to enhance transferability. Similarly, Orey and Nelson (1994) challenge the radical view that all knowledge is situated, emphasising overlap between formal and informal knowledge. They argue that well-understood formal knowledge can be applied in informal contexts, suggesting a more balanced approach.

Practical limitations of Situated Learning have also been highlighted. Kumar (2021) notes that it is time-consuming to develop and requires intrinsically motivated learners. Gawande and Al-Senaidi (2015) argue that it can be costly to implement, it requires trainers with extensive experience, and it may not prepare learners for unexpected situations. Additionally, Herrington and Oliver (2000) and Besar (2018) criticise the oversimplification of learning materials, which may lack the richness of genuine materials. Finally, Situated Learning has been critiqued for ignoring cultural and personal complexities. Fenwick (2001) argues that it overlooks issues of race, class, and gender, which can hinder meaningful participation for some students. Classroom activities simulating reality may fail to address the diverse needs and abilities of learners.

Given these criticisms of Situated Learning, I considered other mid-range theories of practice, including Activity Theory, Distributed Cognition, and Cognitive Apprenticeship. Activity Theory, rooted in Vygotsky's work, emphasises the role of tools and social structures in mediating learning but was dismissed for its theoretical and methodological complexity. Distributed Cognition, which examines how knowledge is shared across individuals and artifacts, was deemed less suitable due to its heavy reliance on technological mediation, which does not align with the human-centric focus of this study. Cognitive Apprenticeship, while sharing similarities with Situated Learning, was rejected for its narrower focus on expert-novice relationships, which overlooks the broader social and cultural dimensions of learning. Despite its criticisms, I chose Situated Learning for its comprehensive framework that integrates social interaction, authentic contexts, and identity formation. Its emphasis on CoPs and LPP aligns closely with the vocational training context of this study, where learning is deeply embedded in real-world practices and social interactions. While acknowledging its limitations, Situated Learning provides a robust theoretical foundation for exploring how Blended Learning can support the development of vocational English skills in authentic, context-specific environments such as the one where this study is conducted.

3.2.3 Relevance of Situated Learning to the Current Study

The current study focuses on evaluating a Blended Learning model within a corporate learning environment where apprentice trainees receive tailored training from their employer. This evaluation examines the perceptions of the main stakeholders involved, which assumes different interpretations. Situated Learning theory, recognised as one of the most influential theoretical developments in vocational education and training (Guile & Unwin, 2019), emphasises that learning should occur in contexts that resemble how knowledge will be applied in real vocational settings (Brown, 1997). This principle aligns closely with the corporate training context this study is examining.

Henning (2004) argues that the corporate world has led the development and application of Situated Learning approaches, noting that companies are primarily interested in learning that is deeply embedded within specific industry contexts and the cultural and technical practices of particular organisations. Corporate investment in education also drives aggressive evaluation of both formal and informal learning outcomes. From a Situated Learning perspective, Hennessy (1993) conceptualises learning as a process where knowledge transitions from private understanding to shared knowledge through collective engagement in social activities and discourse.

This theoretical foundation provides the conceptual basis for examining how Blended Learning can support vocational English development within authentic corporate contexts, while acknowledging the social dimensions of workplace learning.

3.2.4 How Situated Learning is Employed in the Current Study

This study operationalises Situated Learning theory through several analytical constructs that directly inform data collection and analysis. Context serves as a central analytical element, with theoretical emphasis shaping data collection methods to capture participants' experiences within the vocational settings of oil and gas training. The analysis assesses whether the Blended Learning model successfully bridges classroom learning and workplace application. Authenticity functions as the primary analytical criterion for evaluating learning effectiveness, following Winn's (1993) assertion that learning happens when learners "work on 'authentic tasks' whose execution takes place in a 'real-world' setting" (p. 16). The analysis examines how learning activities connect to real workplace demands and provides assessment criteria for meaningful, transferable learning outcomes.

The apprenticeship model provides analytical criteria for evaluating how effectively the Blended Learning approach incorporates mentoring relationships and scaffolded progression, examining learners' movement from guided practice to independent professional communication competence. According to

Lave and Wenger (1991), “learning is an integral part of a generative social practice in the lived-in world” (p. 35), and Communities of Practice offer an analytical perspective for evaluating how the Blended Learning model creates collaborative learning environments that mirror workplace communities of practice, examining social interaction patterns and knowledge sharing among participants.

Lave and Wenger’s (1991) concept of Legitimate Peripheral Participation “provides a way to speak about the relations between newcomers and old-timers” (p. 29). This study examines how the Blended Learning model facilitates students’ gradual integration into the learning community, tracking their progression from classroom novices to more proficient workplace English users through scaffolded support strategies. Finally, transferability serves as an analytical lens for evaluating whether skills developed through the Blended Learning model are applicable beyond the classroom, providing criteria for assessing how effectively authentic, context-specific learning prepares trainees for their professional roles.

Conclusion

Social Constructivism and Situated Learning provide complementary theoretical foundations for this study. Social Constructivism guides examination of collaborative knowledge construction within the Blended Learning environment, while Situated Learning operationalises through several analytical constructs, providing concrete criteria for evaluating workplace-relevant learning effectiveness. This dual framework enables systematic investigation of both social learning dynamics and contextual authenticity required for vocational English development. Together, these theories provide a comprehensive analytical lens for understanding how Blended Learning bridges academic instruction and professional practice within the target oil and gas training context.

Chapter 4: Research Design and Methodology

This chapter outlines the methodological approach employed to evaluate the Blended Learning model implemented in a vocational training organisation in Saudi Arabia. Beginning with an examination of the philosophical foundations that inform this research, the chapter explains my rationale for adopting an evaluative case study design to assess how the model supports vocational English development. The chapter then describes the specific research setting within the oil and gas training context, my multi-stakeholder approach to participant selection (encompassing students, teachers, trainees, and trainers), and the ethical considerations inherent in conducting insider research. Following this, I detail the three data collection methods employed – interviews, focus groups, and questionnaires – and explain how reflexive thematic analysis was used to generate the findings presented in Chapter 5. Throughout, I address strategies for ensuring trustworthiness, particularly given my dual role as both researcher and practitioner within the organisation. This comprehensive account demonstrates the rigour with which I conducted this investigation and provides the foundation for understanding and evaluating the research findings.

4.1 Philosophical Underpinnings

Within a broad constructivist worldview that individuals seek understanding of the world in which they live and work, and develop varied subjective meanings of their experiences (Creswell, 2017), this study is a subjective undertaking, whereby I hold the belief that social reality should be explained through the experience of different participants in the research context (Cohen et al., 2018), as “the social world can only be understood from the standpoint of the individuals who are part of the ongoing action being investigated” (p. 17). Aligning with this view, in this study I hold a relativist ontology, believing that “reality is constructed within the human mind… [and] is relative according to each individual who experiences it at a given time and place” (Moon & Blackman, 2014, p. 1170). This means that reality is subjective in nature and is shaped based on individual perspectives where individuals create sense and meaning in social contexts. This acknowledgement of the subjective nature of

knowledge and experience is relevant when studying student and teacher perceptions in the practical setting of VET. Relatedly, I hold an interpretivist epistemology, holding that “humans construct knowledge as they interpret their experiences of and in the world… knowledge is grounded in our particular experiences… is subjective and bound to the natural contexts in which we enact our lives” (Hiller, 2016, p. 103).

4.2 Methodology: Evaluative Case Study

I employed an evaluative case study approach to assess the value of the Blended Learning model within my vocational training organisation. Case study methodology enables in-depth investigation of complex social phenomena in natural settings, providing rich, holistic descriptions that capture nuances often overlooked by other approaches (Bassey, 1999; Harrison et al., 2017; Tight, 2017). This methodology is particularly valuable for educational research where phenomena are embedded within complex institutional and social contexts, investigating real-life interactions of events, human relationships, and contextual factors (Cohen et al., 2018). I adopt Bassey’s (1999) definition of case study as

> an empirical enquiry which is conducted within a localised boundary of space and time... into interesting aspects of an educational activity, or programme, or institution, or system; mainly in its natural context and within an ethic of respect for persons; in order to inform the judgements and decisions of practitioners or policymakers (p. 58).

This definition aligns with my study’s focus on exploring the Blended Learning model within the natural organisational setting where I work, examining its implementation to inform practitioner and policy maker decisions.

Case study design focuses on detailed investigation of bounded, complex phenomena through holistic understanding rather than selected aspects (Tight, 2017). This approach enabled me to capture the particularity and complexity of the Blended Learning model within important organisational circumstances (Stake, 1995), investigating this contemporary educational phenomenon where

boundaries between the model and its implementation context are not clearly evident (Yin, 2018). The flexibility of this methodology allowed examination of contextual factors such as corporate culture and workplace practices that shape the learning process.

The evaluative case study approach is particularly suited to educational model evaluation because it combines thick description with systematic analysis to produce informed judgements about effectiveness (Merriam, 1998). This approach is widely recognised for evaluating complex educational phenomena through stakeholder perspective exploration, addressing limitations that arise when relying solely on quantitative methods which can obscure crucial qualitative insights (Harrison et al., 2017; Simons, 2009; Zainal, 2007). Merriam's (1998) functional categorisation distinguishes evaluative case studies from descriptive studies that provide detailed phenomenon accounts, and interpretive studies that develop or challenge theoretical assumptions. Evaluative case studies specifically focus on the assessment of phenomena, making this approach most appropriate for examining the target Blended Learning model's effectiveness from multiple stakeholder perspectives.

Although quantitative measures such as tests and surveys have been implemented since the model's inception, deeper qualitative insights about stakeholder experiences remain unexplored. This evaluative case study examines both learner and instructor perspectives to illuminate features of the model that quantitative evaluations cannot capture, providing comprehensive assessment that informs practice and policy decisions within vocational training contexts.

4.2.1 Methodological Alignment and Appropriateness

My choice of case study aligns with this project's theoretical underpinnings, as there is frequently resonance between case studies and interpretive methodologies (Hitchcock and Hughes, 1995). Qualitative case studies assume relativist ontology and subjectivist epistemology (Rashid et al., 2019), emphasising close researcher-participant interaction and viewing participants

as active contributors to the case narrative (Tight, 2017). Case studies are particularly valuable in practice-oriented fields such as education, producing concrete, context-dependent knowledge appropriate for social sciences (Starman, 2013). They enable holistic understanding of phenomena within real-life contexts from participants' perspectives (Boblin et al., 2013) and allow qualitative analysis of complex events while considering numerous variables (Starman, 2013). This approach enabled me to focus closely on the Blended Learning model, developing holistic understanding through thorough investigation of the research context and its impact on participants' perceptions.

Moreover, case study design is particularly appropriate when addressing 'how' and 'why' questions, when participants' behaviour cannot be manipulated, when contextual conditions require coverage, or when boundaries between phenomenon and context are unclear (Yin, 2018). These conditions apply to the current study: my main research question is a 'how' question, experimenting is not permitted in this structured context, and the Blended Learning model cannot be isolated from its implementation context. Additionally, my interest lies in deeper insights rather than simple quantitative measures, providing formative feedback while the model remains in operation.

4.2.2 Case Boundaries and Definition

I defined clear case boundaries to ensure focus and manageability while acknowledging that boundaries between phenomenon and context can be blurred and may evolve during research (Baxter & Jack, 2008; Merriam, 1998; Tight, 2017; Yin, 2018). The case is bounded by specific time, space, and contextual parameters that clarify what will and will not be studied, guiding data collection and analysis without overwhelming complexity (Dawidowicz, 2011; Johansson, 2003).

This study's case is the implementation of a Blended Learning model within a vocational training organisation, bounded by several parameters. Organisational boundaries encompass the standardised educational model with uniform curricula, methodologies, and assessment practices across multiple

training centres. Geographical and institutional boundaries are set by centralised policies and procedures governing these centres. Temporal boundaries span data collection from December 2024 to March 2025. These boundaries maintained focus on the Blended Learning model's implementation within its specific organisational context while providing a clear framework for exploring effectiveness. This approach aligns with the emphasis of case study methodology on particularity and depth, enabling rich insights into the model's impact on vocational English training while acknowledging the unique characteristics of the setting and the interconnected nature of educational phenomena within their implementation environments.

4.2.3 Addressing Case Study Limitations

I addressed common criticisms of case study methodology through careful planning and methodological rigour while acknowledging inherent limitations. Case studies face criticism for time and resource demands, potential lack of rigour, extensive documentation difficulties, and concerns about validity, reliability, and researcher bias given their reliance on investigator sensitivity and integrity (Ellinger & McWhorter, 2016; Merriam, 1998; Simons, 2009; Yin, 2018). However, proponents argue that the depth and richness of case studies offer unique insights into complex social phenomena, particularly for exploring 'how' and 'why' questions in real-world settings (Hyett et al., 2014; Merriam, 1998).

I managed large data volumes through iterative analysis during collection, refining focus and adapting subsequent efforts. Rigour was ensured through detailed accounts of research context, participant characteristics, and implementation circumstances, supported by strong theoretical foundations that my prior knowledge of the setting enabled, and which is critical for rigorous case study research (Merriam, 1998). I employed triangulation, member checking, and established ethical guidelines to enhance trustworthiness while maintaining research integrity.

The generalisability debate remains central to case study research, with critics questioning the applicability of findings from small-scale, context-specific studies (Bassey, 1999; Dubois & Gadde, 2002; Zainal, 2007). However, case studies focus on particularisation rather than generalisation, contributing to broader understanding through analytical rather than statistical generalisation (Stake, 1995; Yin, 2018). I acknowledge that this study captures a specific organisational Blended Learning model, limiting direct applicability elsewhere. However, the detailed descriptions and methodological transparency that I employ enable readers to assess transferability to their contexts. Through analytic generalisation, findings can inform understanding of similar cases through reasoning rather than statistics (Yin, 2018). This detailed account of implementation successes and challenges contributes to broader vocational education discourse, offering valuable lessons for similar contexts through theoretical statements supported by evidence (Cohen et al., 2018; Simons, 2009).

4.3 The Research Setting

The research setting is vocational training centres, totalling seven centres under the industrial training department of an oil and gas company in Saudi Arabia. This setting represents a significant case for several reasons: it constitutes a comprehensive corporate training environment where English language learning is essential for professional success; it implements a recently introduced Blended Learning model requiring evaluation; and it provides access to multiple stakeholder perspectives within an authentic vocational context.

The seven centres, though located in different cities, run similar programmes and follow the same training model (curricula, teaching methods, assessment, etc.) as explained earlier. They provide vocational training programmes for prospective and current employees of the company, including academic courses (English, Mathematics, Clerical), job skills courses (Craft, Technical, Operator), and safety courses. English is the medium of instruction, and the organisation maintains state-of-the-art training facilities. Academic and safety courses are conducted in classrooms and computer/science laboratories while

job skills courses are conducted in workshops equipped with machinery that resembles the actual work environment. Trainees also undertake field trips to their future work sites for actual demonstration of target skills as part of their training.

The training department has implemented a Blended Learning model since late 2023, incorporating in-class instruction with asynchronous online learning via Blackboard. Teachers use the platform to assign, monitor, and grade self-directed learning tasks. Assessment is primarily quantitative, including formative tasks and final tests, as well as Likert-scale satisfaction surveys for trainees. Notably, teachers are not surveyed, and no qualitative evaluation is conducted.

This organisational setting was deliberately selected as the research case for several compelling reasons that make it particularly appropriate for investigating the effectiveness of Blended Learning in vocational English training. First, the scale and reach of the organisation's training provision is substantial: operating seven centres across Saudi Arabia and serving both prospective and current employees of one of the largest oil and gas companies in the world means that the Blended Learning model affects a significant number of learners (around 2,000 each year) and has genuine impact on workforce development in the sector. This scale ensures that findings reflect more than isolated individual experiences, capturing patterns and challenges that emerge when a model is implemented across multiple sites and cohorts.

Second, the maturity and intentionality of the Blended Learning implementation make this case especially valuable for study. Unlike many organisations that adopted blended approaches as emergency responses to COVID-19 and subsequently returned to traditional methods, this organisation has deliberately evolved through multiple iterations of Blended Learning design (from emergency online teaching during lockdowns, through an interim 80:20 blended model, to the current 60:40 'modular curriculum'). This evolution demonstrates organisational commitment to refining the approach based on experience, and it means that the current model represents a considered design rather than an

improvised response. The purposeful creation of curricula specifically for blended delivery – with each component designed to capitalise on the affordances of its respective modality (see Table 1) – further distinguishes this case from contexts where existing materials were simply distributed across online and face-to-face formats.

Third, the vocational context itself provides a distinctive setting for examining Blended Learning effectiveness. The clear connection between English language training and specific workplace communication demands in the oil and gas industry creates concrete criteria for evaluating whether the model achieves its intended purpose. The organisation's structure, where academic training directly precedes job skills training (conducted in simulated workplace environments), enables examination of skill transfer between educational and vocational contexts – a crucial dimension often absent in general education settings. Additionally, the fact that trainers in job skills courses observe and work with graduates of the English programme provides a unique source of evidence about the longer-term effectiveness of language training that extends beyond the immediate academic context.

Fourth, the availability of multiple stakeholder perspectives within this single case enhances the richness of data that can be gathered. The organisation employs numerous English teachers with varied backgrounds and experience levels, trains thousands of students annually across different locations and technical specialisations, and includes trainers who can comment on how well the English training has prepared learners for technical study. This diversity within a single organisational case enables comparative analysis across different stakeholder groups while maintaining contextual consistency.

Finally, from a methodological standpoint, the combination of existing quantitative evaluation measures with an absence of qualitative assessment creates an ideal opportunity for this research to make a meaningful contribution to practice. The organisation already gathers substantial quantitative data (test results, completion rates, satisfaction scores) but lacks the deeper understanding of stakeholder experiences that qualitative inquiry can provide.

This means the study fills a genuine evaluative gap in organisational practice while contributing to academic understanding of Blended Learning in vocational contexts. The organisation's openness to this research and willingness to provide access to multiple stakeholder groups further confirmed the appropriateness of this case selection.

These factors collectively establish this organisational setting not merely as a convenient location for research but as a strategically chosen case that offers optimal conditions for addressing the study's research questions about how Blended Learning supports vocational English development.

4.4 The Researcher's Position

As a qualitative researcher, my 19-year experience within this training department provided relevant expertise for recognising good data sources, understanding what leads to significant insights, and testing observation authenticity and interpretation robustness (Stake, 1995). My role as career counsellor positioned me strategically within the same premises yet detached from the Blended Learning model under investigation. While knowing some instructors personally, I had no direct teaching relationship with learners, and this illustrates my partial insider status. This specific positioning brought both opportunities and potential challenges. The insider aspects offered easier access, contextual familiarity, and participant rapport, but I was also aware of the possible challenges this positionality could impose, such as bias, subjectivity, and ethical concerns, which I actively addressed through systematic reflexive practice, triangulation strategies, and adherence to ethical guidelines throughout the research process (Greene, 2014; Mercer, 2007; Taylor, 2011; van Heugten, 2004) [see Sections 4.7.2, 4.8, and 4.9 for detailed discussion]. This dual positioning offered significant advantages: my insider familiarity with the environment, participants, and implementation context informed research design and data collection decisions, while my detachment from teaching, assessment, or programme management eliminated participant pressure and bias concerns, enhancing ethical integrity and trustworthiness.

My research interest stemmed from professional curiosity and institutional responsibility. Regular interaction with training programme graduates, including Blended Learning completers, revealed varying confidence and communication competency levels, raising questions about pedagogical effectiveness in professional preparation. My career progression through multiple English Unit roles – teacher, coordinator, principal – provided me with comprehensive understanding of English training evolution in the organisation. This historical perspective, combined with my current focus on learner outcomes and career readiness, uniquely positioned me to evaluate the model's effectiveness in developing vocational English skills while facilitating participant access without conflicts of interest.

4.5 Participants

I aimed to recruit participants who represented the main stakeholders of the target Blended Learning model, namely instructors and learners. For a full-rounded picture, I aimed to obtain data from:

- The current users of the Blended Learning model, namely, the students who were – at the time of data collection – studying English, and their teachers. These provided first-hand fresh experience of the model.
- Graduates of the target Blended Learning model, namely, the trainees who had completed their English studies and were studying job skills, besides their job skills trainers. These provided practical and informed knowledge about the effectiveness of the English learned via Blended Learning in handling job-related tasks in the job skills classes, which were also taught in English.

More specifically, I targeted four types of participants: a) English teachers – referred to as "teachers" in this study – who were the main users of Blended Learning in the training centres in terms of the daily number of class periods (English classes constitute the majority of the academic training day, normally four to five out of six class periods) or the number of students assigned to them (English classes are normally larger in size compared to job skills classes

because the latter are controlled by the number of equipment available for practice in each workshop); b) students studying English – referred to as "students" – who were the second main stakeholder of the Blended Learning model; c) job skills trainees – referred to as "trainees" – who had completed their English training using the target Blended Learning model and were using the English they previously learned in their technical training; and d) job skills trainers of the latter group of students – referred to as "trainers". The rationale behind the inclusion of the four groups was to collect more varied and richer data, which means more iterations from different settings. This allowed for a more comprehensive understanding of the target phenomenon and diluted potential bias, hence improving the rigour of the study and increasing trustworthiness and transferability.

Case studies often use non-probability, purposive samples, as qualitative sampling seeks information richness and selects cases purposefully rather than randomly (Cohen et al., 2018; Creswell, 2017). In the current study, I recruited a targeted sample from each of the four populations described above. For the students' sample, I targeted those at the highest academic level (English level 6) to ensure they had spent sufficient time with the Blended Learning model and possessed sufficient English proficiency to respond to data collection questions. For the teachers' sample, I targeted those who had been with the organisation for at least two years to ensure familiarity with both students and the Blended Learning model, while including teachers of varying nationalities to diversify perspectives. For the trainees' sample, I targeted those who had completed at least one full job skills unit to ensure sufficient exposure to assess English effectiveness, including trainees from different job skills tracks. For the trainers' sample, I targeted trainers of Blended Learning graduates, ensuring inclusion of diverse nationalities and job skills units for multiple perspectives. Table 2 summarises the number of participants from each group.

Participant Categories	Numbers of Participants
Students	14
Teachers	7

Trainees	8
Trainers	7
Total	**36**

Table 2: Participant Numbers

Teachers owned varied experience levels both within and prior to their current jobs. They all had experience in teaching face-to-face classes as an employment requirement (minimum of five years). Those who had been in the organisation since 2020 possessed experience with the earlier Blended Learning iterations in the organisation described in Section 1.3, while newcomers did not have this kind of experience. Trainers were mainly technical specialists (engineers, field technicians, operators, etc.) with training certification (e.g., train-the-trainer) that they obtained prior to starting their teaching jobs. This rich diversity in backgrounds and experiences contributed additional layers of depth and insight, thereby strengthening the rigour of this study.

Participating students and trainees were all Saudi nationals. Most of the students were high school graduates selected and enrolled in the training programme based on their high school grades in addition to a placement test in English and Mathematics. A smaller number were graduates of local technical and community colleges, so they went through a relatively shorter training programme, which is considered a bridging period since they already had some relevant technical knowledge from their previous colleges. Neither of the two types of students had Blended Learning experience prior to joining the company as they came from schools or colleges where instruction was purely in-class. After they completed their academic studies, they were enrolled in job skills training, where they became referred to as “trainees”, and where they received specialised technical education to prepare them for their future roles in the company. Therefore, trainees were those who had completed their academic training using Blended Learning and moved on to study specialty courses – according to their future job tracks – in workshops that resembled the actual workplace.

As participants were geographically dispersed across the country and faced scheduling constraints, I employed a dual-method approach for data collection: face-to-face methods for accessible participants in nearby locations, and email-based qualitative questionnaires for remote participants whom I was unable to meet in person, as detailed in the next section. All participants received detailed participant information sheets (Appendix 3) explaining the study's purpose, procedures, and their rights, and provided informed consent through signed consent forms (Appendix 4) prior to data collection. Full procedures for participant recruitment, information provision, and consent processes are explained in Section 4.6.5.

4.6 Data Collection Methods

Given the complexity of the case under investigation, I employed multiple data collection methods to capture diverse perspectives and enable triangulation (Harrison et al., 2017; Yin, 2009). In designing the data collection tools, I referred to literature on Social Constructivism, Situated Learning, Blended Learning, evaluative research, and vocational English for guidance about main datapoints when writing the questions. To collect and triangulate data for this study, I used three data collection tools: interviews, focus groups, and email-based qualitative questionnaires, as explained below.

The theoretical framework of Social Constructivism and Situated Learning fundamentally shaped these data collection choices in several important ways. On the one hand, Social Constructivism's emphasis on knowledge as actively constructed through social interaction (rather than passively received) guided the decision to use interactive methods – focus groups for students and trainees, and semi-structured interviews for teachers and trainers – that would allow participants to articulate their own understanding of learning processes. The open-ended nature of questions across all three methods reflected the constructivist principle that meaning is subjectively constructed by individuals based on their experiences, allowing their interpretations to emerge. On the other hand, Situated Learning theory's focus on authentic contexts and communities of practice influenced the specific content areas addressed in the

data collection tools. Questions about workplace relevance, technical vocabulary acquisition, and transfer between academic and job skills contexts all stemmed directly from Situated Learning's proposition that learning is most effective when embedded in the situations where knowledge will ultimately be applied. The inclusion of trainers – who observe how academic English preparation manifests in subsequent technical training – was specifically designed to capture evidence of whether Situated Learning principles (such as Legitimate Peripheral Participation) were operating effectively within the Blended Learning model.

The decision to include both teachers and learners (in two different phases of their journey) also reflected theoretical considerations. Social Constructivism recognises that teachers and students play complementary roles in knowledge construction, with teachers serving as 'more knowledgeable others' within Vygotsky's Zone of Proximal Development. Therefore, understanding how learning occurs required accessing both perspectives. Similarly, Situated Learning's emphasis on progression from peripheral to full participation meant that investigating both current students (still in peripheral roles) and trainees (moving towards fuller participation in vocational communities) would reveal whether this developmental trajectory was successfully supported by the Blended Learning model.

4.6.1 Interviews

I used semi-structured interviews with teachers and trainers because they allow participants to share unique experiences and stories through open-ended questions that encourage free expression and deeper insights into events (Bassey, 1999; Sinha, 2017; Stake, 1995). This approach enabled me to gather explanations, clarifications, and detailed descriptions rather than simple yes/no responses, while maintaining the flexibility to adapt questions based on each participant's experiences. I conducted seven interviews in total: three with teachers and four with trainers. Teacher interviews used six core questions (Appendix 5), whereas trainer interviews focused on five core questions

(Appendix 6). Throughout each interview, I employed probing questions to seek clarification, encourage elaboration, and explore emerging themes.

As business colleagues, I contacted teachers and trainers directly via email or in person. For each interview, I prepared printed handouts (Appendices 4 and 6) that included the core questions – in addition to participant information sheets and consent forms – and I handed a copy to each participant at the start of the interview. I used a voice recording application that provided instant transcription, then carefully reviewed each script to correct errors, clarify ideas, and produce polished versions for analysis. During this review process, I noted potential themes and highlighted key ideas that later informed theme development for the Findings chapter.

4.6.2 Focus Groups

I opted to use focus groups for students and trainees based on prior experience suggesting they would participate more comfortably in group settings, and because focus groups yield collective rather than individual perspectives through participant interaction, capturing insights that other methods cannot (Cohen et al., 2018). This method also enabled triangulation with interviews and questionnaires while gathering data efficiently on perceptions and attitudes. I conducted four focus groups (two for students, two for trainees) with four to five participants in each, deliberately keeping groups small to ensure meaningful contribution from all participants and for manageable dynamics (Morgan, 1997). Student focus groups used six core questions (Appendix 7), whereas trainee groups used five core questions (Appendix 8). Throughout discussions, I employed responsive probing questions to encourage deeper exploration and clarify responses, while carefully managing group dynamics to prevent domination by individual members.

Since I lacked direct access to students and trainees, principals and learning counsellors helped me with recruitment. Each session began with printed handouts containing core questions (Appendices 8 and 10), participant information sheets, and consent forms. I used the same voice recording and

transcription process as interviews, reviewing scripts to correct errors and produce polished versions for analysis while noting potential themes and key ideas for thematic development.

4.6.3 Email-Based Qualitative Questionnaires

Semi-structured questionnaires are particularly valuable in case studies for understanding nuanced participant experiences while maintaining focus on key research questions (Merriam, 1998; Yin, 2018). I used email-based qualitative questionnaires for remote participants due to organisational restrictions on recording Zoom calls. To address the methodological tension of using questionnaires in a predominantly qualitative study, I designed primarily open-ended questions to generate narrative rather than numerical data. This approach enabled participants to respond at their leisure to these open-ended questions that invited detailed, narrative responses in their own terms (Bassey, 1999; Cohen et al., 2018). This maintained the interpretivist focus on understanding meaning from participants' viewpoints, with responses analysed thematically as text alongside other qualitative data.

I used three questionnaires: teachers (six questions, Appendix 9), trainers (five questions, Appendix 10), and students (six questions, Appendix 11). Trainees were excluded as they lacked computer access in job skills workshops, unlike students who had iPads and computer laboratory access. Participants received information sheets, consent forms, and questionnaires by email (Appendix 12) with one week to respond. All participants replied, though some required reminders.

While reviewing responses, I identified AI-generated content from students through several indicators: overly formal language inconsistent with their communication style, unusually comprehensive responses compared to peers, generic answers lacking personal examples, and advanced phrases beyond their English proficiency level. Students appeared to mistake the exercise for a test, seeking 'correct' answers rather than authentic reflections. Following email clarification from me emphasising genuine personal responses, only four

students provided authentic second responses. I therefore excluded all non-original responses from analysis. This experience highlights the need for clearer initial instructions emphasising authentic personal responses, and potential verification strategies for future email-based data collection.

4.6.4 Critical Friend Review of Tools

Prior to data collection, and after finalising the design of the data collection tools, I shared them with two colleagues who were not participants in the main study for review and to verify alignment between the tools and the research questions. One colleague held a PhD in educational technology, and the other was a PhD researcher in the same programme at Lancaster University. Both colleagues provided feedback covering suitability for the target population, relevance to the research questions, adequate coverage of key areas, tool length, language clarity, and potential ambiguities or difficulties. I used their feedback to refine the questions before proceeding with data collection.

4.6.5 Collecting the Data

After obtaining organisational approval, I aimed to secure initial agreement from potential participants. To achieve this, participation was explained as voluntary and safe to all target participants. Only those who expressed willingness were given participant information sheets and asked to complete consent forms prior to data collection events. Data collection took place between December 2024 and March 2025. Table 3 summarises the data collection methods and participants in each event.

Participant Categories	Data Collection Events	Numbers of Participants	Number of Scripts
Students	Focus Group 1	5	1
	Focus Group 2	5	1
	Questionnaires	4	4
Teachers	Interviews	3	3
	Questionnaires	4	4
Trainees	Focus Group 1	4	1
	Focus Group 2	4	1
Trainers	Interviews	4	4

	Questionnaires	3	3
Total		**36**	**22**

Table 3: Data Collection Methods

4.7 Data Analysis

I employed reflexive thematic analysis (Braun & Clarke, 2006) following a hybrid deductive-inductive approach because it enables flexible, iterative exploration of participant experiences while allowing theoretical frameworks to inform but not predetermine emerging themes (Braun & Clarke, 2019, 2022; Xu & Zammit, 2020). This approach aligns with case study research's emphasis on analytical induction and openness to multiple realities rather than statistical generalisation (Cohen et al., 2018; Starman, 2013).

The analysis process balanced systematic interpretation with meaning-making from initial impressions through final compilations (Stake, 1995; Merriam, 1998). Given case studies' focus on depth over breadth and understanding the specific case rather than generalising findings (Simons, 2009), I converged data from multiple sources into a cohesive narrative that strengthened interpretations and enhanced credibility (Baxter & Jack, 2008). Throughout this analysis process, the theoretical framework served not as a rigid template that predetermined findings but as a sensitising lens that guided attention towards particular aspects of the data while remaining open to unanticipated themes. Social Constructivism influenced the analysis by prompting attention to how participants described collaborative knowledge construction, the role of dialogue and interaction in their learning, and the social dynamics that either supported or hindered language development. When coding data, instances where participants discussed peer interaction, teacher scaffolding, or collective meaning-making were recognised as theoretically significant not because the framework dictated these must be present, but because the framework alerted me to their importance when they did appear in participants' accounts.

Situated Learning theory similarly shaped analytical attention without constraining interpretation. The framework encouraged particular sensitivity to participants' descriptions of authentic workplace connections, the relevance (or

lack thereof) of learning activities to professional contexts, and the ways in which learners were (or were not) being inducted into communities of practice. Codes related to technical vocabulary, workplace scenarios, and transitions between academic and vocational contexts were developed partly because the theoretical framework highlighted these as significant dimensions of vocational learning. However, the framework also revealed gaps and tensions – such as the disconnect between academic vocabulary and job-specific terminology – that participants experienced but that might have been overlooked without theoretical awareness of how Situated Learning should ideally function.

For example, the concept of the Zone of Proximal Development (ZPD) from Social Constructivism guided analysis of how teachers and peers supported learners' progression, leading to the identification of scaffolding patterns in the data that might otherwise have been coded simply as 'teaching methods' or 'help-seeking behaviour'. Similarly, Situated Learning's concept of Legitimate Peripheral Participation directed analytical attention to how learners described their progression from academic training to job skills contexts, revealing the theme about implementation effectiveness and the sub-theme about suggestions for improvement that emerged from participants' recognition of gaps between classroom learning and workplace demands. By maintaining this balance between theoretical guidance and empirical openness, the analysis produced findings that were both theoretically grounded and empirically responsive to the specific context under investigation.

4.7.1 Reflexive Thematic Analysis Process

Reflexive thematic analysis acknowledges the researcher's active role in interpreting data, recognising that background, assumptions, and perspectives inevitably shape the analytical process (Braun & Clarke, 2021). This approach is particularly valuable in educational research where understanding subjective participant experiences is crucial (Nowell et al., 2017). In this process, I applied six key steps:

1. **Familiarisation:** I immersed myself in transcripts through repeated reading, highlighting key ideas and making initial annotations to detect patterns.
2. **Initial Coding:** I generated initial codes based on recurring ideas and patterns, assigning labels to text segments that represented meaningful ideas or concepts. For example, codes like “social interactions,” “teachers’ roles,” “authentic learning activities,” and “challenges and recommendations” were used to capture key concepts. These codes served as building blocks for uncovering themes in the next step.
3. **Theme Development:** I organised the codes into broader themes, such as “the role of face-to-face learning” and “the impact of the learning environment,” identifying connections and relationships.
4. **Theme Review:** I then refined the themes to ensure they accurately reflected the data and addressed the research questions, clustering related themes into sub-themes and splitting overly broad themes.
5. **Theme Definition:** After that, I defined each theme and gave it a descriptive name that reflects its essence, examining how they related Social Constructivism and Situated Learning frameworks. This theoretical mapping helped deepen my understanding of the themes while ensuring they remained grounded in the data rather than imposed by theory. This produced 15 sub-themes clustered under five main themes, supported by participant quotes across all four groups.
6. **Producing the Report:** I wrote the findings in narrative format using thick description and contextualised storytelling to transform raw data into meaningful insights (Harrison et al., 2017; Hyett et al., 2014).

4.7.2 Reflexive Practice

Throughout the analysis, I engaged in systematic reflexive practice, critically examining how my positionality as an educator, contextual familiarity, and cultural understanding might inform or bias my interpretation of participant narratives (Braun & Clarke, 2021). This involved keeping analytical notes, questioning initial interpretations, and considering alternative perspectives. By explicitly acknowledging my role as both insider and interpreter, this reflexive stance enhanced transparency and methodological rigour while ensuring

themes remained authentically grounded in the lived experiences of the participants.

4.8 Trustworthiness

In qualitative research with an interpretive stance, the researcher's central role in generating and interpreting empirical material shifts focus from traditional reliability and generalisability concerns to authenticity – the extent to which findings correspond to reality (Rashid et al., 2019). Since qualitative research deals with context-specific, constantly evolving social phenomena where replication is neither feasible nor relevant, case studies prioritise intrinsic interest over representativeness (Bassey, 1999). This requires researchers to ensure trustworthiness through well-founded arguments and clear audit trails that allow scrutiny and challenge by other researchers.

I employed multiple complementary strategies to ensure trustworthiness and methodological rigour: criteria for trustworthiness and rigour (basically triangulation), credibility enhancement strategies, and methodological transparency.

4.8.1 Criteria for Trustworthiness and Rigour

Both methodological and source triangulation were employed as the foundation of this study's trustworthiness framework. Method triangulation was achieved through three distinct data collection approaches: interviews, focus groups, and questionnaires. Source triangulation was accomplished by gathering data from four distinct participant groups: teachers, students, trainees, and trainers. Additionally, intersubjectivity was captured by eliciting varied perspectives from different individuals within each participant group. The integration of these diverse methods, sources, and perspectives enhanced the study's credibility and provided comprehensive understanding of the Blended Learning model's effectiveness.

4.8.2 Credibility Enhancement Strategies

Multiple strategies enhanced research credibility and authenticity. Data source alignment with research questions was ensured by confirming each data collection question directly addressed one or more research questions, verified during critical friend review (Section 4.6.4). Member checking confirmed interpretations by sharing first-draft findings with two participants (one teacher, one trainer), who verified accurate reflection of their views. Critical friend review involved sharing the finalised draft with two Lancaster University colleagues (one PhD graduate, one current researcher), whose constructive feedback refined the final report (Baxter & Jack, 2008; Cohen et al., 2018).

4.8.3 Methodological Transparency and Documentation

Throughout the research process, I strived for methodological transparency by providing detailed descriptions of the findings, supported by direct quotations from participants' actual words, to enable readers to evaluate the logic of the conclusions (Merriam, 1998). Furthermore, I wrote with verifiability in mind by systematically documenting each step of the data collection and analysis processes, as detailed earlier in this chapter. This comprehensive documentation ensures that the research process can be clearly understood and evaluated by other researchers (Creswell & Poth, 2018).

These measures, underpinned by a robust theoretical framework and solid research design as detailed in this chapter and the previous one, collectively ensured the trustworthiness and rigour of the study, demonstrating a commitment to authenticity and methodological integrity.

4.9 Ethical Considerations

According to Blaxter et al. (2010), "the conduct of ethically informed research should be a goal of all social researchers. Most commonly, ethical issues are thought to arise predominantly with research designs that use qualitative methods of data collection" (p. 161). Ary et al. (2010) clarify that educational researchers, unlike researchers in the physical sciences, deal with human subjects with feelings, sensitivities, and rights who must be treated ethically, so the research should be conducted without violating ethical principles. In

conducting my research, I hold the position that ethical matters go beyond the completion of ethical documentation requirements for approving the research. They are concerned, to a greater extent, with the good conduct of the research throughout the entire process, with what researchers should and should not do in their research (Cohen et al., 2018), with exercising responsibility in the processes of data collection, analysis, and dissemination (Blaxter et al., 2010), and with how the actual research procedures align with the written commitments.

This study followed the British Educational Research Association (BERA)'s Ethical Guidelines for Educational Research (2024), which provided a comprehensive framework for identifying and addressing ethical considerations specific to this study, as follows.

4.9.1 Power Dynamics and Coercion Risks

Given my insider position as both researcher and colleague, BERA guidelines highlighted the risk of participants feeling pressured to participate or provide socially desirable responses. To mitigate this, I clearly explained that participation was entirely voluntary, emphasised participants' right to withdraw at any time without consequences, and conducted data collection outside working hours where possible to minimise any perceived workplace pressure.

4.9.2 Confidentiality and Anonymity Concerns

The guidelines highlighted risks of participant identification within the study's unique organisational context. I addressed this by using robust anonymisation procedures, employing aliases for all participants, removing identifying details from quotes, and ensuring that findings were presented in ways that could not reveal individual identities to colleagues or management.

4.9.3 Informed Consent Challenges

BERA guidelines emphasise the importance of truly informed consent beyond mere signature collection. I provided detailed participant information sheets

explaining the study's purpose, procedures, potential risks and benefits, data usage, and storage arrangements. Participants were given time to consider their involvement and ask questions before signing consent forms.

4.9.4 Data Protection and Storage

The guidelines highlight responsibilities for secure data handling. All data were stored securely and encrypted on Lancaster University servers, accessed through my University OneDrive account. Interview recordings were transcribed and anonymised promptly, with original recordings deleted after transcription verification.

4.9.5 Dual Relationships and Bias

BERA guidelines recognise the complexity of conducting research within one's workplace. To address potential conflicts of interest, I maintained clear boundaries between my researcher and employee roles, disclosed my dual position to all participants, and employed reflexive practices throughout data collection and analysis to acknowledge and minimise bias.

Application for ethical approval was completed and submitted online to the Ethics Committee of the Department of Educational Research at Lancaster University, and approval was secured (see Appendix 2) before data collection commenced. Pre-approval from organisational management was also obtained, ensuring conformity with the company's research and publishing ethical guidelines.

Conclusion

This chapter has outlined the evaluative case study methodology employed to assess the Blended Learning model within my vocational training organisation. The interpretivist, social constructivist approach I adopted enabled in-depth exploration of how the model supports vocational English development from multiple stakeholder perspectives. By gathering data through questionnaires, focus groups, and semi-structured interviews from four distinct groups –

students, teachers, trainees, and trainers – I captured both the breadth and depth of experiences across the learners' developmental journey from academic training to job skills application. Reflexive thematic analysis provided a systematic yet flexible approach to identifying patterns within this rich qualitative data, while my position as an insider researcher, though presenting challenges, offered valuable contextual understanding that enhanced the study's credibility. The trustworthiness strategies detailed in this chapter – including triangulation across methods and stakeholder groups, reflexive practice, and transparent documentation – ensure that the findings presented in Chapter 5 are credible, dependable, and authentic. This methodological framework has thus provided a robust foundation for evaluating the effectiveness of Blended Learning in this specific vocational context.

Chapter 5: Findings

This chapter presents the findings of the study based on analysing the data collected from the participants, guided by the theoretical framework of Social Constructivism and Situated Learning, and driven by the research questions. The study gathered data from a diverse pool of 36 participants, including 14 students, seven teachers, eight trainees, and seven trainers, ensuring representation across all stakeholder groups within the target vocational training organisation. The findings presented in this chapter offer a comprehensive evaluation of the Blended Learning model through five interconnected thematic dimensions that collectively capture its implementation, effectiveness, challenges, and potential for enhancement in the Saudi vocational context. The findings are systematically presented through the perspectives of the four distinct stakeholder groups whose voices are intentionally sequenced to reflect the learners' developmental journey through the vocational English programme. This organisational approach traces the progression from the academic section, where learners acquire vocational English skills through the Blended Learning model, to the job skills training phase, where they apply this knowledge in practical contexts, thereby providing a semi-longitudinal view of skill development and transfer.

The first thematic dimension, "The Interplay Between Modalities," sets up the foundational structure of the Blended Learning model, examining how its two components (face-to-face instruction and self-directed learning) function both independently and in concert to foster language acquisition. This dimension serves as an entry point for understanding the model's architecture, addressing the instructional design elements that shaped learning experiences. Building upon this foundation, the second dimension, "Vocational English Skills Development," evaluates the specific language competencies fostered by the model, including functional workplace communication, written correspondence, oral communication skills, and technical vocabulary acquisition. This dimension examines the alignment between pedagogical approaches and vocational outcomes, thus bridging theoretical design with practical application. The third

dimension, “The Learning Environment and Social Dynamics,” explores how the human elements – teachers and peers – influenced learning within the Blended Learning framework. This social dimension illuminates how knowledge is constructed collaboratively, highlighting the critical role of community in supporting language development within technologically mediated contexts. The fourth dimension, “The Role of Technology,” assesses how digital tools both enhanced and potentially impeded learning, examining the benefits, barriers, and pathways toward more effective technology integration. This dimension acknowledges technology not just as a delivery mechanism but as a transformative force reshaping pedagogical possibilities and constraints. The fifth dimension, “Implementation Effectiveness and Challenges,” synthesises insights from across the preceding dimensions to evaluate the model’s overall impact, highlighting systemic challenges and stakeholder-driven recommendations for improvement. This culminating dimension provides a holistic assessment that informs practical adjustments to the model’s design and delivery. This thematic organisation allows for a nuanced understanding of the model’s strengths and limitations while preserving analytical focus on the research questions, setting the stage for a deeper discussion of implications in the subsequent chapter.

5.1. The Interplay Between Modalities

This theme underscores the acknowledged synergy and tensions arising from the Blended Learning model implementation. Data revealed an emphasis on how both face-to-face and self-directed study modalities contributed to, and sometimes conflicted with, the learning process.

5.1.1. The Value of Face-to-Face Interaction

Participants highlighted how physical classroom settings created unique learning opportunities that digital environments could not replicate. Students emphasised how face-to-face interaction provided rich learning experiences. Student 1 commended face-to-face teaching “for several reasons, such as body language and facial expressions between the student and the teacher.” Some

students reported boosted confidence through regular classroom participation. Student 5 commented, “We are learning how to communicate, how to talk to each other, how to be brave, to ask the teacher or anyone in English.” For some, like Student 8, this represented significant progress: “I didn’t know how to open a conversation with a stranger...after we joined the ITC (Industrial Training Centre), I developed my skills.” Student 11 summarised: “We communicate with our colleagues, we communicate with teachers, and that improved our English a lot.”

Teachers and trainees highlighted the value of face-to-face instruction in fostering language production and immediate application. Teacher 4 highlighted that face-to-face instruction “develop[ed] language production efficiently,” through structured speaking activities. Similarly, Trainee 6 emphasised that “face-to-face instruction was really helpful” for their learning process. Trainee 4 explained how face-o-face interaction bridged theoretical knowledge and practical application: “Outside in society, you don’t usually speak English...Being here is an opportunity to experience the language.”

Trainers clarified how face-to-face interaction prepared trainees for workplace demands. Trainer 3 rated trainees’ oral communication at “9/10,” noting their ability to “handle discussions thoroughly” and present confidently. Trainer 7 arranged safety meetings where trainees delivered presentations, explaining: “They stand in front of the class...this gives them experience they will need in job skills.” Trainer 4 reported noticeable improvements in the trainees’ performance: “When you elaborate or explain further or give examples… they can easily understand.”

The social dimension of face-to-face learning proved equally important. Trainee 7 appreciated how interactive sessions “improved social skills with friends, how to communicate and have an open heart,” while the cumulative impact became evident in the learners’ transformed confidence. Student 8 captured this progression: “When the teacher is present, that definitely improved my confidence...now I can have a full discussion.” Similarly, Trainee 7 reflected: “It

improved my confidence...I can fully understand what he's saying, and he can understand me too."

These findings highlight face-to-face interaction as key in addressing RQ1.1, revealing how this modality uniquely developed the interpersonal communication skills essential for vocational success. The progression of learners from hesitant to confident communicators shows that physical classroom settings bridged theoretical knowledge and practical application, underscoring the situated nature of language learning in this vocational context.

5.1.2. The Potential of Self-Directed Learning

The self-directed component of Blended Learning enabled personalised language development, allowing learners to progress at their own pace utilising diverse digital resources. This approach particularly benefited writing and technical vocabulary acquisition, though its effectiveness depended on individual motivation and the quality of available materials.

Students appreciated the flexibility to tailor their learning experience to personal needs and schedules. Student 1 explained, "Self-directed learning helps me improve English by practicing at my own pace," while Student 3 added, "The self-directed part is helpful for students who need to improve on their own, and it offers the possibility to interact with the course from anywhere and anytime." Some students explained how they relied on themselves to improve their skills, as Student 2 noted: "I practiced writing essays, emails, and reports with automated tools such as grammar and spelling checker." Time management flexibility proved another significant advantage, as Student 12 explained: "At home… you have the freedom of managing your time your own way." Student 11 noted the positive impact of this: **"**you can go on your own pace...and that will give you time to process the information that you learned." This flexibility was useful as learners could refine their work without time constraints. Also, some students developed independent learning strategies, like Student 14 who used AI tools critically: "I tell it, hey, here are the rules...don't change anything. Just tell me what's wrong."

Teachers recognised how self-directed learning provided personalised paths for students. Teacher 3 valued how “the ability to redo any Part 1 or 2 activity allows trainees to go at their own pace in preparation,” and Teacher 4 agreed that it “allows students to take control of their learning process and progress at their own pace.” Teacher 1 noted that students “use online tools or apps to study technical words, which they can review at their own pace,” and Teacher 2 emphasised the value of interactive exercises: “Part 2 consists of different computer-generated activities for students to become familiar with the target language. Students are provided with real-time feedback.” These features enabled the students to develop their own skills independently and eased the teachers’ workload. Teacher 7 noted, “the online self-learning… it does relieve the teacher a little bit.”

Trainees appreciated specific advantages of self-directed learning. Trainee 7 noted, “writing in self-directed study is better than in the class... At home I go through them all and try to practice these questions,” while Trainee 1 valued the reinforcement opportunity: “whenever we are done with a lesson I could always go back and rehearse that same lesson via Blackboard.” Trainee 7 exploited the self-study opportunities to overcome time limitations: “The teacher chooses only one [exercise] because of time [limitation]. So, when I go home, I write all four and try to make all three the same as the first one, with no mistakes.” This highlighted how self-directed study empowered trainees to take ownership of their progress.

Trainers also emphasised how self-directed learning developed relevant workplace competencies. Trainer 6 connected this directly to professional requirements: “This [self-directed mode] is preparing trainees that one day they’ll have to let go of our hands...they have to do their own research and come back with ideas.” The approach succeeded when it moved beyond isolated exercises to foster genuine autonomy, as Trainer 6 envisioned: “Preparing them to work independently, to use their own creativity.”

A key enabler in the self-directed learning part was the integration of diverse digital tools. Students utilised pronunciation apps (“For speaking I use apps

[like] Duolingo to improve my pronunciation" – Student 1) and advanced AI writing assistants. Student 9 commented, "You can just click the word and the AI function in Blackboard will speak it out," and Student 11 added, "you can use Grammarly, that will do it instantly for you." Trainee 6 highlighted how "you have more websites now to teach you more...YouTube content now is very accessible."

However, participants noted limitations and areas for improvement. Student 12 said, "Parts 1 and 2 of the daily tasks... I don't really think they are interesting," while Trainee 4 wished for "a recommendation box... about websites that are useful in helping us improve learning." Trainer 4 envisioned greater enhancements: "Much better if we incorporate some online mentor that they can ask immediately when they encounter one technical word." Participants stressed the limitations of self-directed learning in cultivating interactive skills. Teacher 4 pointed out, "developing oral communication is pretty limited as the vast majority [of the students] are doing the SDL component on their own with a very limited chance of speaking to others in English." Trainee 2 highlighted the issues of isolation and lack of communication: "Online is only hearing, no communication with the teacher."

These findings address RQ1.2 by showing how self-directed learning fostered workplace essential language skills. However, variation in learner responses suggests that the effectiveness of this modality depended on individual motivation and abilities, highlighting the need for more adaptive support mechanisms within the Blended Learning model.

5.1.3. The Integration of Modalities

The integration of face-to-face instruction with self-directed learning enhanced each approach's effectiveness. This combination led to deeper understanding, greater confidence, and more practical application of knowledge.

Students highlighted how the two approaches supported their progress. Particularly effective was the sequencing of learning activities across modalities. Student 9 described how online materials introduced workplace

terminology that in-class instruction later clarified: “First we learned it online, and then we applied it in the emails… the teachers explained these words.” Student 10 found that classroom activities inspired further independent exploration: “The face-to-face activities made me also practice self-directed learning and research in order to learn,” underscoring how each modality stimulated engagement with the other.

Teachers emphasised the intentional design behind this complementary relationship. Teacher 2 explained this sequencing:

> The self-directed component... introduces the target language and prepares students with phrases and vocabulary... By the time students attend face-to-face lessons, the foundation has been laid. Students are equipped with the target language ready to apply it in written and oral prompts.

Teacher 1 added: “The face-to-face classes give students guidance and practice with me, while self-directed learning helps them review and practice more at home… Together, they make sure students learn better and faster because they have both support and independence.” Teacher 3 clarified that this preparation transformed classroom dynamics: “Giving [students] the opportunity to undertake the input stages of language acquisition through automated self-study allows for a greater focus on production skills and activities in the face-to-face sessions.” Teacher 5 noted how successful implementation combined structured guidance with self-directed exploration, as the latter gives them “exposure to develop their own understanding, and then the teacher refines in the classroom.” Teacher 7 observed the impact firsthand: “When I come into class to do Part 3 with them, they’re already onboard, they know what the function is all about, they’ve done the vocabulary, they’ve done the listening.”

In technical training contexts, this interplay proved valuable. Trainee 4 said, “being here… is actually an opportunity to experience the English language…

[and] Blackboard... [is] a resource that I can use to discover new words." Trainee 8 noted that:

> Self-directed activities almost served as a warmup to the lesson… when I do Parts 1 and 2 [at home], I learn about what we'll be taking [in class] and then the next day, we'd have discussion… and it would help us with the lesson.

Trainee 6 acknowledged the complementary relationship between modalities, noting that while self-directed learning alone might not be "as effective for learning new things... it would help you a lot, to improve the things you have learned, to implement them… it does help you in a way where you have already learned and practiced in class."

Trainers commended the dynamic integration of instructor-led and self-directed study for its efficiency. Trainer 7 explained:

> Blended Learning is very useful… it is sometimes fundamental for an instructor not to talk a lot, but to leave it to them, just to give them guidance… I talk five, eight minutes, 10 minutes… and then I can leave it up to them after that.

Trainer 2 described a structured Blended Learning approach:

> In our Rigger III Refresher Course, this has proven to be highly effective in developing trainees' job-specific vocabulary. The course has a mandatory eLearning combined with a 360-degree interactive Rigstar simulator that must be completed before the face-to-face practical training. This provides trainees interactive and immersive experiences, reinforcing terminology through practical experiences.

Trainer 4 stressed how self-study prepared learners for hands-on practice:

> Just give them more time to do self-study… then they will come here only for… doing the practical activity. That will save a lot of resources

> and time… they can spend more time here in… practical exercises, instead of consuming much time in teaching verbally or theoretically.

This approach ensured that in-class sessions focused on application rather than repetition, maximising efficiency. Trainer 5 noted how digital tools bridged the two components: “Blackboard… really helps… we are monitoring them… they’ve already done it at home… So, we minimise the time consumed for discussions.”

Despite the advantages, limitations were reported. While Student 1 highlighted “face-to-face is the best learning way; it enhances oral communication through real-time activities like playing Kahoot [which] can help you improve your language,” Student 3 noted, “it might be neglected, and students may feel that it’s unnecessary to do the learning part at home and just get enough from face-to-face classes.” This showed that without external accountability, motivation decreased.

These findings provide a nuanced response to RQ1 by showing how the complementary relationship between face-to-face and self-directed learning created a comprehensive framework for vocational English development. The progression from independent study to collaborative application reflects social constructivist principles, where knowledge is first internalised individually then socially constructed through meaningful interaction. However, the limitations noted by the participants suggest that this integration requires careful planning to avoid fragmentation of learning. This underscores the importance of intentional design that considers the cognitive and social transitions between them – a key consideration for Blended Learning in vocational contexts where theoretical knowledge must translate into practical application.

5.2. Vocational English Skills Development

A dominant theme was the connection between the English language skills learned in the academic section and their workplace applicability in the oil and gas industry, emphasising practical communication abilities through realistic contexts.

5.2.1. Functional English for Workplace Readiness

The development of functional English skills for workplace interactions was central to the Blended Learning model. Participants highlighted the importance of mastering industry-relevant language functions. The functional language elements included in the Blended Learning model focused on teaching specific language patterns required for workplace interactions.

Students noted how practical activities enhanced their competence in workplace communication. Student 3 noted, “The use of functions would prepare any student to be able to communicate with their colleagues, supervisors, and managers.” Student 5 remarked, “Sometimes the question starts with ‘report to your supervisor or to your colleague’… sometimes it’s not an email,” illustrating how varied communication formats were incorporated into the Blended Learning model. A notable example came from Student 7, who highlighted the immediacy of the lessons: “We took a function that talked about emergency … like calling 911, and what to do when an emergency happens… this will help us in the job… when emergency happens.” These real-life applications reflected the model’s focus on workplace readiness and students' perceived preparation for workplace challenges.

Teachers also affirmed this relevance. Teacher 1 emphasised the comprehensive nature of this approach, noting that “Blended Learning prepares students well because it combines real-life practice in the classroom and self-study online. For example, face-to-face classes help them role-play workplace scenarios, and online tools let them practice industry terms, which they need for their jobs.” Also, Teacher 3 observed that “opportunities to speak in pairs, groups, or as an individual in front of the class allow for ownership and personalisation of target functions, while aiming for a raised awareness of workplace specific conversation scenarios and formats.” The specificity of workplace communication was exemplified through structured activities, as Teacher 4 described: “They provide and develop answers, mostly in the form of a business email. For example, ‘Respond to Omar’s email below. You are his

supervisor. Empower him.'" Teacher 7 illustrated how functional language was systematically developed through practical application, explaining:

> For example, looking at a function for requesting a vacation... they'll have to go home and figure out what kind of languages they need to learn, like asking, giving... let's ask our manager if you can take a vacation this summer... Let's apply the language we learned now.

Trainees highlighted the applicability of their academic learning in their job skills training. The Blended Learning model fostered their confidence and professionalism in communication. Trainee 3 reflected on this growth, stating, "The improvement that [academic] training provided me… is it mainly gave me confidence to speak English… it helped me to become professional." Trainee 5 added:

> One area that helped us when we were taking the English programme was delivering a very quick and easy to understand safety message… because when we are talking about job skills… about how we should deliver the safety message, we know how to get ready.

The trainers' observations further reinforced the model's emphasis on developing relevant workplace communication competencies through targeted functional language instruction. Trainer 2 highlighted how the programme successfully developed industry-specific writing skills, noting that "some trainees display strong English writing communication skills like writing an accurate lift plan, documenting the required rigging equipment, and perfect hazard identification." This technical documentation capability was complemented by professional correspondence skills, as Trainer 4 explained: "Sometimes I ask my students to write a report as practice for their future job. Because we are communicating through emails to supervisors." The model's effectiveness in developing collaborative communication functions was also evidenced by Trainer 7's approach to interactive learning: "We usually ask them to read… I ask each group to generate questions for the other group... they are able to [do] it, they are able to read."

These findings address RQ1.3 about authentic learning contexts, illustrating how the Blended Learning model bridged classroom instruction with workplace demands by situating language acquisition within realistic industry scenarios. This suggests that the authenticity of learning contexts significantly enhanced the relevance and retention of vocational English skills, confirming the value of a socially constructed approach to language education in this Saudi vocational setting.

5.2.2. Written Communication for Correspondence and Reporting

The ability to communicate effectively in writing was a cornerstone of the Blended Learning model, particularly for professional correspondence and reporting in the oil and gas industry. Participants emphasised the importance of mastering formal emails, reports, and technical documentation, recognising these skills as essential for workplace success.

Students highlighted how the model improved their ability to write professionally. Student 5 summarised: “We are learning how to write a proper email with the good words and good punctuations and capitalisations.” The model’s strength was grounded in its use of authentic workplace scenarios. Student 13 explained, “I learned how to write an email… to my supervisor, requesting to conduct the monthly inspection… or the opposite… my supervisor sent me an email to write to him about the result of the monthly safety inspection.” Student 11 recalled, “We wrote an email that… you need to buy some gloves for... Pipe 37... we’d have to go and research fields related to oil and gas to develop our emails.”

Teachers emphasised the effectiveness of the Blended Learning model in developing writing skills through structured exercises. The model effectively merged independent study with teacher-led instruction, with Teacher 2 highlighting that “written communication in a face-to-face classroom is necessary for students’ development.” Online exercises helped learners practise key skills before applying them in class. Teacher 3 mentioned: “Activities such as sentence jumbles, cloze tests, and so on, are

provided to practice syntax and lexis." Teacher 6 highlighted how this scaffolding improved the learners' professional writing, noting, "It was just so important because the trainees would be confused in how to write a proper email with the proper layout." Through guided practice and feedback, learners made significant progress "with the feedback that we give them, they managed to do that," Teacher 6 added.

Trainees confirmed the real-world applicability of their writing training, noting significant improvements in their skills. Trainee 7 shared: "I didn't know how to create or make a sentence and write an email correctly. But after the English phase… I wrote like 90% perfect email." Trainee 6 highlighted the impact on their professional communication, stating: "It did help me a lot with emails, so I could describe the situation more to the person [on] the other screen, so he could understand my email more." Trainee 5 explained the rigorous practice that contributed to their development: "We would write two to three emails every day, and we usually had a teacher monitoring." This process followed a progressive approach. Trainee 5 added:

> My writing originally was quite weak. I wasn't using punctuation or full stops… when I go to the English functions and I would go back to the reference, it would show me the phrase is used with a comma, or do we put a full stop here… it showed the usage of a semicolon.

Some trainees, however, expressed difficulties, such as Trainee 1, who said: "I feel like I'm less prepared in the writing section. I make a lot of mistakes when I write a paragraph… I might forget to put punctuation mark."

Trainers also noted certain challenges in trainees' written communication, particularly in spelling and technical writing. Trainer 3 rated trainees at "6/10" explaining that they have "a hard time with English spelling. They are able to construct sentences and paragraphs with minimal grammatical errors but most of the words are spelled incorrectly." Trainer 4 added, "in writing a technical English report… as practice for their future job... when I read… I can understand… when [I] check the spelling, there are spelling problems." Despite

these difficulties, trainers acknowledged that grammatical errors were less frequent and more manageable. Additionally, some trainees struggled with self-expression in writing. Trainer 7 highlighted, “The most challenging stuff perhaps [is when] they must express themselves in writing... you have to write it for them... most of the time.” This suggested that while basic sentence structure and grammar were manageable, higher-level writing skills required considerable development.

The findings on written communication reveal a significant connection between RQ1.1 and RQ1.2, showing how both face-to-face and self-directed components contributed to developing this crucial workplace skill. The structured progression from guided practice to independent writing reflects the scaffolded approach essential for vocational learners. However, the recurring challenges with spelling and technical writing highlight an area where the model’s authenticity (RQ1.3) requires strengthening, particularly in ensuring that writing tasks more precisely mirror the complexity and specificity of workplace documentation. This tension between general and specialised written communication skills suggests a good opportunity for refining the Blended Learning model.

5.2.3. Oral Communication for Workplace Discussions and Presentations

Building on the face-to-face benefits discussed in Section 5.1.1, this section examines the delivery skills, fluency, and public speaking abilities developed through structured speaking exercises.

Students reported that structured speaking exercises helped them refine their communication abilities. Student 2 noted: “It allows me to express my thoughts confidently with my teacher and my classmates and provides me a peaceful and organised environment to do so.” Students also highlighted presentations as a key method for developing professional speaking skills. These tasks improved language skills and deepened subject-matter expertise. Student 6 said:

> Sometimes you're assigned to make a presentation about subjects related to your work... You search about the subject and learn more about it… try to summarise it and present it to your colleagues in the class. And it's [a] supervised activity… by the teacher… this is really [an] important opportunity for you to develop your public speaking skills, especially that you are working in a company that needs these skills in the future, and you don't find these activities usually outside the training centre.

Teachers noted that the structured approach to speaking activities supported authentic communication. Teacher 4 gave a concrete example of workplace scenarios used in class: "The speaking activities are structured to get trainees engaged in spontaneous conversations... For example: 'The air conditioner engineer is setting the temperature for your office. He asks about optimality. Answer him.'" Such exercises mirrored authentic workplace interactions, bridging the gap between classroom learning and real-life application.

Trainees acknowledged the effectiveness of the Blended Learning model's structured approach in developing their oral communication skills. Trainee 4 noted significant progress: "It has improved my pronunciation of words, and it also gave me a room to experience more ways to use words to formulate sentences." This sentiment was echoed by others, who emphasised how the training fostered fluency and professionalism. Trainee 3 remarked: "It mainly gave me confidence to speak English... it helped me to become professional." Trainee 5 also highlighted a critical workplace function: "One area that helped us was delivering a very quick and easy-to-understand safety message. I think that is very crucial." A key factor in this development was the practical application of skills through activities such as presentations. Trainee 8 commented: "It really helped me for presentations… as someone who always suffered from social anxiety as a kid… the support I got from the teachers, and the presentations really helped me." Additionally, the model provided access to valuable resources that further enhanced speaking abilities. Trainee 6 shared: "Teachers provided us with some websites where we [could] communicate with native speakers, and… improve our accents." This exposure

to real-world interactions complemented classroom learning, ensuring well-rounded development.

Trainers also noticed significant improvements in trainees' ability to engage orally in professional communication, particularly in contexts that resembled real workplace demands. Trainer 7 explained: "When they come to job skills … this is the element that is adequate enough… to be able to have a dialogue, to have a discussion, to understand and to respond." Trainer 4 agreed: "Unlike the previous years… they are well equipped, well prepared… most of them are fluent already with accent… we can effectively communicate with each other... they can effectively participate in the discussions." Trainer 1 highlighted the impact of this: "Trainees with good oral English communication excel better in process units of the PCST (Process Control Systems Training) programme... [they] exhibit confidence, are assertive, dialogue more frequently with [the] trainer to clear the doubts, ask questions..." This assertiveness and willingness to engage contributed to more effective learning and collaboration. Another good example was safety communications, where structured activities reinforced clarity and conciseness – essential skills in high-risk environments. Trainer 7 explained:

> We have safety meetings whereby a safety message has to be delivered by the trainees themselves... once a week… one of them is being given the opportunity to prepare a presentation, then he will… present to the rest of the class.

These brief and focused exercises developed presentation skills and boosted confidence in professional dialogue.

The development of oral communication skills through the Blended Learning model addresses both RQ1.1 and RQ1.3 by highlighting how face-to-face instruction created authentic contexts for developing workplace-relevant speaking abilities. The progression from structured classroom exercises to confident professional interactions proves the powerful role of Situated Learning in vocational language education. Particularly significant is how these activities

simulated the communicative demands of the oil and gas industry – from safety briefings to technical presentations – enabling the learners to foster their linguistic knowledge and professional identity. This finding suggests that the face-to-face component remains irreplaceable for developing the dynamic, context-sensitive oral communication skills essential in high-stakes vocational environments like that of oil and gas.

5.2.4. Technical Vocabulary Acquisition

The Blended Learning model placed emphasis on integrating technical vocabulary from the oil and gas industry into learning activities, ensuring that students developed the language skills necessary for their future professional roles. Students highlighted the value of the daily activities in acquiring technical terms. Student 5 noted: “Each day we have a new function… [and there] are questions on the industry or inside the plant, they are talking about refinery stuff, so that will develop the technical vocab.” The use of authentic workplace scenarios was particularly effective in reinforcing technical vocabulary. Student 8 shared: “All examples for the functions are related to the oil and gas industry, things like ‘rotation’, ‘rigs’, ‘offshore’, ‘onshore’.” Students also highlighted the value of interactive activities. Student 7 mentioned: “There is a game. It’s called Taboo. You must learn to explain the word that you have without saying it… You will try to say close words that you know… in English.” Student 10 also valued the eLearning vocabulary course: “It had… a word, and it would explain its meaning… it would give you examples on how to use the word.” These activities reinforced contextual understanding through varied practice modes.

Teachers described how this vocabulary is contextualised within industry scenarios. Teacher 1 clarified: “I explain technical words related to their jobs and help them use these words in sentences.” Teachers highlighted the importance of assisting their students to reach a complete understanding of the terms. Teacher 6 stated: “They might just get the word by themselves, but pronunciation and using it in different contexts, they would still struggle.” Self-study tools were praised for enabling independent reinforcement. Teacher 4 noted: “SDL has proven to be successful in the acquisition of technical

vocabulary. My students have access to various glossaries and online dictionaries, which greatly help them understand the target vocabulary."

Trainees confirmed that familiarity with industry terminology smoothed their transition into technical training. Trainee 2 commented: "Vocabulary that are related to the job like new 'machinery', 'equipment'… when you go to a job skills class, everything you see there is familiar to you." Different trainees acknowledged the strengths of different Blended Learning modalities for vocabulary acquisition. Trainee 2 appreciated face-to-face instruction: "In class, learning is more effective… I learned the word 'tentative'… after my teacher told us about it… I used it last week." However, Trainee 4 valued self-study for foundational vocabulary learning, mentioning: "Blackboard definitely helped. It's a resource that I can use to discover new words, like… the word 'ambivalent'. I didn't know that this word existed before."

However, not all participants found the model equally effective for vocabulary acquisition. Trainer 3 noted that some trainees "cannot visualise technical words such as specific equipment relating to job skills jargons." Trainer 2 clarified that "while some [trainees] might recognise basic terms such as 'crane', they often struggle with more complex terms such as 'load capacity' or 'centre of gravity'." Trainer 7 gave a straightforward explanation: "They can utter the words, they know the meaning, but when they try to spell it and write it, they sometimes write something completely different." Some teachers also acknowledged the challenges in aligning vocabulary instruction with workplace needs. Teacher 2 commented: "Vocabulary focuses more on administrative terms rather than the target language students will use in their specific work environment."

Some trainees and students also agreed that there were challenges, like Trainee 8 who expressed frustration: "Most of the words we learned aren't really useful to us as technicians. They're mostly business words, not words that are applicable in our line of work." Trainee 6 admitted: "It was more of a communication type. So, when we come here and we take our job skills classes, there are lots of words we didn't know about." This disconnect was

particularly evident when trainees encountered unfamiliar jargon in their vocational courses. Student 14 gave an example:

> The word ‘plant’… when we heard it in class, I thought that it was a… flower, or this green thing. But then [the trainer] said that we are going to the plant… I didn’t ask. I went to ChatGPT… and I got the right meaning, which means a factory.

To mitigate these challenges, Trainer 5 recommended some preparatory procedures like “giving them a word list… maybe in the last segment before they come to job skills… to self-study at home… at least when they come here, it’s familiar to them, not totally new.”

The mixed findings on technical vocabulary acquisition problematise RQ1.3’s focus on authentic learning contexts. The noticeable gap between academic vocabulary and job-specific jargon highlights a disconnect between curricular design and workplace demands. This disparity underscores the need for greater collaboration between academic and industry professionals in selecting and teaching relevant terminology – a recommendation that aligns with the Situated Learning theoretical framework.

5.3. The Learning Environment and Social Dynamics

The data analysis emphasised the impact of the learning environment, including interactions with teachers and peers, on students’ language development and overall learning experience. A dynamic and interactive environment, where learners actively engaged in discussions, games, and collaborative tasks, fostered enthusiasm and learning. The interplay between social interaction and authentic, context-driven tasks proved essential in sustaining motivation and reinforcing comprehension.

5.3.1. The Contribution of Teachers

The teachers’ role in shaping students’ learning experiences was evident through their ability to guide, support, and provide meaningful feedback.

Participants highlighted how direct interaction with teachers fostered confidence, deepened understanding, and clarified misunderstandings.

Students emphasised that the teachers created a structured environment where learners could refine their skills. Student 11 said: “The teacher made us practice… he gave us a prompt, and he asked one student to answer it, and he would give him immediate feedback.” Teachers shared their professional expertise to support learning. Student 9 appreciated this guidance: “The teacher will share some knowledge and experience from his journey in teaching English.” Similarly, Student 4 mentioned: “I prefer asking teachers after discussion,” illustrating how approachable the teachers were. Teachers also fostered improvement through creative and engaging methods. Student 10 explained: “One teacher… organised like a game to give us a question each... that way, it would help us develop our speaking.” The supportive and collaborative atmosphere the teachers created further enhanced learning outcomes. Student 14 noted the accessibility of support: “I can go and ask the teacher,” also acknowledging, “now with my teacher, because he really helped me, my writing improved.” Student 3 also attributed the students’ progress to the teachers’ expertise, remarking: “Because of my teachers’ amazing facilitation… I saw a huge improvement in my communication skills.” However, challenges arose when expectations between teachers and assessors diverged. Student 12 commented: “One of the difficult things is that we have more than one perspective… there is a teacher who’s teaching us, but the one who’s scoring us has another opinion.” This inconsistency sometimes left students uncertain about how to meet assessment criteria, highlighting the need for alignment in feedback.

Teachers recognised their responsibility for guiding, supporting, and providing meaningful feedback to their students. Teacher 1 explained: “I guide them in writing short answers or emails, showing them how to use correct grammar and vocabulary.” The teachers also fostered active participation, encouraging students to take ownership of their learning. Teacher 7 described this approach: “I do involve trainees a lot, like I say, what do you think of that?... What’s another word for this word? So, I get them a lot to lead the

session.” This method reinforced confidence and ensured students remained engaged. Teacher 6 highlighted the need for individual attention: “They come to the class, and they need more attention from the teacher.” Beyond language skills, teachers bridged the gap between classroom learning and real-world application by contextualising technical terms within industry-specific scenarios. Teacher 5 emphasised this connection: “I try to get them to think about it… trying to connect what we’re doing in the classroom to their [job] track.” This approach ensured students understood the relevance of their studies, further motivating them to develop their skills.

Trainees appreciated the attention and support they received from their teachers throughout the Blended Learning programme, particularly when they faced challenges with complex concepts. The presence of attentive and highly qualified instructors enhanced their confidence, as highlighted by Trainee 5: “We usually have a teacher monitoring… these teachers are quite highly qualified.” Trainee 5 further explained: “The teacher can directly see your email… and give live feedback.” This immediate and individualised guidance was highly valued. Trainee 6 echoed this sentiment, praising his teacher’s dedication: “I had [a] really cool teacher who really helped me a lot… She was always paying attention to what we needed and our mistakes.” Additionally, Trainee 8 acknowledged the impact of the teachers’ support: “The support I got from the teachers… really helped me.”

Trainers acknowledged the foundational role teachers played in preparing students for effective communication during their job skills classes, noting significant improvements in both proficiency and confidence. For example, Trainer 6 stated: “There’s a huge improvement in the communication skills… if I call them in for a presentation… the delivery method… there’s a vast improvement compared to the past.” Trainer 3 highlighted students’ growing confidence: “They are able [to] provide questions and feedback when they need more enlightenment regarding a certain topic. They are able to present a topic in front of the class with confidence.” Trainer 6 also remarked: “They are being groomed quite well in the academic [section]. So, by the time they come to me, they know exactly which programmes to do the presentation and how to deliver

it. I was pleasantly surprised." Trainer 7 emphasised the importance of leveraging this strong academic foundation: "We understand that a great deal of work is done at [the] academic [section], and therefore we need to make sure it continues." Trainer 5 encouraged building on this foundation and fostering it even further through developing the trainees' self-dependence: "I tell them, take your own initiative… you can ask for help… but you need to do something for yourself."

These findings about the significant contribution of teachers address RQ1.1, revealing how instructor-guided interaction served as the cornerstone of effective vocational language development. Teachers' roles as facilitators of the social construction of knowledge – creating opportunities for meaningful dialogue, providing targeted feedback, and contextualising learning within authentic workplace scenarios – align with the theoretical framework of this study. Additionally, their ability to bridge classroom learning with industry requirements addresses RQ1.3 by ensuring that language acquisition stays grounded in relevant vocational contexts. These findings prove that despite technological advances, the human element continues to be essential in Blended Learning environments, especially in vocational settings where the understanding of professional communication norms requires expert guidance and modelling.

5.3.2. The Influence of Peer Interaction

Peer interaction played a vital role in helping learners develop their communication skills, refine their understanding, and build confidence through shared experiences. Participants highlighted how working with classmates enriched learning, whether through collaborative exercises, peer feedback, or informal discussions.

Students emphasised how peer discussions and group activities strengthened their speaking and writing abilities. Student 14 explained: "In class, everyone helps each other, and there's no hard feeling… whenever someone tells me that something's wrong, even if I think that it's right." Collaborative writing

exercises were particularly beneficial, as peers often spotted errors or suggested improvements that their colleagues might have missed. Student 4 shared: “When you discuss with other students about your writing, they might see something you haven’t seen, or the opposite, you might help them.” Even disagreements became valuable learning opportunities. Student 5 recalled: “Me and (my colleague) are reviewing an email, and we are disagreeing about punctuation, a comma or something… so we can recall the face-to-face class, and we say the teacher said that it should be like that.” By revisiting classroom instruction together, students reinforced their understanding collectively.

The social dynamics of the classroom fostered a sense of shared progress, extending beyond formal lessons. Student 8 reflected: “Sometimes we have a milestone, which is the test or quiz. So, I talk with my colleagues to… meet and… study together… we share our thoughts about the functions.” Informal study groups further supported continuous learning, as Student 13 mentioned: “We have [a] WhatsApp group… if we have feedback on email, we share it with friends.” Even casual interactions, such as games, contributed to skill development. Student 15 noted: “After we finish the function of the day in class… we play a little game called ‘Taboo’… I find it very useful that we can explain ourselves. And most of the words that we find are very challenging.” Despite the benefits, some learners acknowledged limitations in peer feedback. Student 4 admitted: “It’s not really accurate… you are discussing with a student as same as your level after all.”

Within this Blended Learning model, teachers actively structured lessons to promote peer collaboration, recognising its significant impact on language development. Teacher 4 noted: “Pair and group writing tasks help [students] learn from each other and develop their writing skills collaboratively.” Teacher 6 further emphasised the benefits of this approach: “Group work is amazing… it gets the students to be more creative… even the quieter ones, they will do something to participate.” This shows how collaborative tasks fostered engagement across different learner personalities. Peer correction played a central role in this context, as Teacher 2 explained: “Students are given the opportunity to peer correct and discuss their answers with each other.” Teacher

2 also highlighted: “The model caters for peer correction as well as self-reflection,” which underscores how the approach nurtured both collaborative and independent learning skills. Teachers kept a guiding presence throughout, ensuring that student-led activities remained productive. Teacher 7 described: “I always get them to kind of run the class… I’m always there to moderate… to observe, if they’re going off track, then obviously I’ll bring them back.” This balance of autonomy and oversight allowed students to take ownership of their learning and benefit from teacher expertise when needed.

Trainees also valued the collaborative habits they developed and actively carried these into their technical studies. Trainee 8 noted: “Before class, we’d have discussion, me and my classmates, and it would help us with the lesson,” highlighting how pre-class conversations enhanced their grasp of the material. Similarly, when faced with challenges, they relied on peer support, as Trainee 2 explained: “We had an exam, and most of us had problems with the subject of the module, so we grouped up and taught each other.”

Trainers continued to make use of peer interaction to enhance learning. One effective method involved reciprocal questioning between groups, as described by Trainer 7: “I divide them into two groups, they will read the same content. They will generate their set of questions. Then they will exchange the questions, try and find the answers from the book.” This approach encouraged engagement with technical material and reinforced autonomous learning, as Trainer 7 added: “They have a reference material, they are able to go to it, they are able to read.” Peer-led explanations also played a role in solidifying understanding. Trainer 5 reinforced this by having trainees articulate concepts in their own words: “I ask them… once you read it… explain to me what you understand about the topic.” To ensure clarity, Trainer 5 added: “I am going to call their names and allow another guy to explain… so that… they can understand what the topic’s all about.” Similarly, Trainer 3 noticed that trainees often turned to peers for clarification: “Trainees tend to… ask their fellow trainees who know about the words.” This illustrates how peer support bridged language barriers. Trainer 3 highlighted the broader impact of such collaboration: “They are able [to] handle discussions and brainstorming

thoroughly with the trainer and fellow trainees," which shows how classroom dynamics directly contributed to job readiness.

The significant role of peer interaction is an important finding that addresses RQ1.1 and RQ1.3, showing how the socially constructed learning environment fostered both linguistic competence and workplace-relevant collaboration skills. The structured peer activities in face-to-face sessions coupled with informal study groups highlight how the Blended Learning model successfully created communities of practice that reflected professional team dynamics. This finding underscores the importance of promoting opportunities for meaningful peer collaboration as an essential attribute of vocational language education, which reinforces the social constructivist principle that knowledge is built through shared experiences and negotiated meaning.

5.4. The Role of Technology

Technology was integral to the Blended Learning model, serving as a medium for self-directed study and a platform for various learning activities. However, the data also highlighted challenges associated with its use.

5.4.1. Advantages of Technology Integration

The integration of technology in the Blended Learning model has transformed how the learners engaged with materials, leading to refining their skills. In addition to the online platform (Blackboard), AI-driven tools like Grammarly, and interactive applications like Quizlet provided the learners with dynamic opportunities to enhance learning independently and collaboratively.

Technology provided real-time corrections through automated tools, enabling independent refinement and serving as valuable – though not always perfectly accurate – references for self-assessment. Student 10 appreciated the seamless advantage of technology:

> It's more efficient than asking other people to help… when I ask my teacher about my email… what I should do better, it would take him

> maybe five minutes to find out all the mistakes and how to improve it. But if I gave the email to an AI… it would immediately find the mistakes, and… tell me how to correct.

Student 12 also acknowledged the value of technology in enhancing their learning: “To spot your mistakes before your teacher spots. That’s useful because we have references… the feedback from the AI, I can see my mistakes.” These iterative processes fostered active knowledge construction rather than passive reception.

Furthermore, the technological infrastructure supported both independent study and enriched classroom dynamics, creating a more efficient teaching and learning environment. Teacher 4 explained: “Online quizzes, interactive exercises… (allowed) students to learn at their own pace and focus on areas where they need extra support.” Teacher 2 agreed, giving an example: “The online content has AI-generated feedback. Students can practice their speaking and receive real-time feedback on their pronunciation.”

Trainees confirmed the role of technology in reinforcing skills in authentic contexts. Trainee 6 highlighted the shift from traditional methods: “Before, we only used to have books, so you would completely rely on your understanding of the book... Now you have… online tools… YouTube content now is very accessible.” Trainee 6 further elaborated on the benefits of digital resources: “You should learn through AI… You have more websites now to teach you… it is really helpful with self-learning.” Additionally, interactive features on the learning platform helped refine practical skills; Trainee 4 remarked: “There’s a section on Blackboard where you need to pronounce the word correctly.” The smooth transition between different training phases further enhanced their experience. Trainee 5 remarked:

> The job skills training that we have is accessible through Blackboard, and the layout for it is very similar to the English training that we were doing… we can navigate it very easily because of the experience we had before.

Trainers, too, highlighted the crucial role of technology in the Blended Learning model. Trainer 2 emphasised immersive tools: “Rigger III Refresher Course… has a mandatory eLearning (course) combined with a 360-degree interactive simulator that must be completed before the face-to-face practical training.” Trainer 6 praised interactive simulations:

> We have other teaching aids, like IVR… [and] simulators… it prepares them for certain job activities… for example, if they have to go and flush a sight glass… on a vessel… [IVR] brings a plant to them, instead of us taking them there… They can immerse themselves into, for example, a column and see exactly what’s happening, and it improves their understanding of the process.

The flexibility of digital resources was also key; Trainer 1 noted: “They access the lessons multiple times and improve comprehension with audio visual learning experience. This also equips them to search for online knowledge resources,” while Trainer 4 mentioned that “they have full access to iPad, full access to internet, they [are] able to communicate (using) technical words.” Trainer 5 underscored the benefits of Blackboard: “Usually I give them an assignment, a module test for them to study [at home on Blackboard] … So, when they come to the class, they are already prepared,” adding that digital tools marked a significant improvement over traditional methods: “It’s actually helping… compared to the past… it was difficult for them, because they had to focus on the hard copy only, and sometimes they left it in their desk, not like the iPad.” The platform also optimised training delivery, as Trainer 5 explained: “If the time is too short and there is a performance test… it can help to minimise the time… and we can concentrate to create other things that could help the [trainees].”

The advantages of technology integration directly address RQ1.2 by illuminating how digital tools extended learning beyond time and space constraints. Particularly significant is how technology enabled the shift from passive consumption to active construction of knowledge, reflecting social constructivist principles. The immersive simulations and interactive platforms

also contribute to RQ1.3's focus on authentic contexts, suggesting that well-designed technological tools can bridge the gap between classroom learning and workplace application. This finding emphasises the role of technology not just as a delivery mechanism but as a key enabler in creating Situated Learning experiences.

5.4.2. Barriers to Effective Use

The integration of technology within the Blended Learning model has also brought significant challenges. Participants reported difficulties stemming from unreliable tools, over-reliance on AI, and the limitations of automated feedback.

Technical issues were a recurring obstacle. Student 3 highlighted the problem of server instability: "Blackboard server might be down, and that would delay the start of the day." Similarly, Student 10 noted: "When we type an email in Blackboard, we want to save the data for before the milestones… every day when we came to log into Blackboard, it would be quite clean, everything was gone." Teacher 7 also reinforced this platform issue: "Blackboard deletes their work, and they come back to me, and they're very upset, they say, we just did everything, and it deleted everything." Teacher 6 mentioned how technical failures impeded progress:

> They got stuck in one or two places, which was the AI part, and had to pronounce and repeat until the AI registers the right pronunciation… it will not correct it… will not approve it, so the students were stuck.

Trainee 5 noted a similar issue, that while doing online studies "the applications might have a problem, so the online sessions might be delayed." Teacher 4 brought another concern: "Poor internet connectivity in some areas can be an issue for some students." Pronunciation tools, though helpful, were not always dependable, as Student 10 noted: "When you click the button to speak the word to check your pronunciation… either the page will freeze, or the programme [will] not understand you." Additionally, these tools sometimes failed to recognise correct attempts, leaving students stuck in repetitive cycles. Teacher

6 described this frustration: “They kept practicing, probably 20 times. They repeated that word and it would not register as the correct version.”

Another concern was the over-reliance on technology, which extended to AI tools like ChatGPT, and which sometimes raised concerns about authenticity and independent learning. Students acknowledged using applications like Grammarly and ChatGPT but found them unreliable. Student 4 commented: “You can use apps like Grammarly to correct your grammar, but they are not really accurate.” Teachers noted the impact of this on developing original content, as Teacher 7 remarked: “They take about two minutes to complete an email… I know it does take about 30 minutes for a student to write an email… Now it takes them less than five minutes… It’s because of ChatGPT.” Despite these concerns, students continued to depend on these tools, as Student 14 admitted: “I’m going to use ChatGPT… But… it will give us all the same answers.” Teachers observed these trends with concern, noting how AI tools disrupted the learning process. Teacher 7 expressed frustration with ChatGPT’s impact on writing: “This has kind of destroyed the whole essence of… writing for yourself, from your own mind, from your own wisdom.” Therefore, Teacher 7 cautioned them: “You’re taking the risk in the exam. Remember, ChatGPT isn’t going to be there.”

Automated feedback systems, though useful, also had limitations. Teacher 2 acknowledged that “the online content has AI generated feedback,” but emphasised that it could not replace human interaction. Trainees faced similar struggles, particularly with spelling and pronunciation exercises that relied on AI validation. Trainee 2 admitted: “I have a lot of typos, and I think due to autocorrect online; I rely on my phone to type for me.” Trainee 3 linked this issue to certain informal learning experiences: “Most of us learnt English through engaging with media like in our phones or tablets or on computers where we had reliance on how to correct, so we weren’t familiar with how words are spelled.” This over-reliance on digital aids sometimes led to misunderstandings, reinforcing the need for balanced instruction.

These barriers to effective technology use relate directly to the self-directed component of the Blended Learning model (RQ1.2), revealing tensions between the theoretical benefits of digital tools and their practical implementation. The technical issues, over-reliance on AI, and limitations of automated feedback highlight the need for a more critical approach to technology integration that acknowledges both its affordances and constraints. Of particular importance is how these challenges can potentially undermine authentic learning contexts (RQ1.3) when technical difficulties or simplified digital shortcuts replace meaningful engagement with vocational content. These findings suggest that technology must be implemented with careful consideration of both pedagogical goals and learning contexts, ensuring that digital tools enhance rather than obstruct the development of workplace communication skills.

5.4.3. Towards More Effective Technology Integration

Building on the challenges described above, participants offered insights for better integrating technology within the Blended Learning model. Their recommendations focused on ensuring digital tools support rather than replace meaningful pedagogical practices, emphasising engagement, personalised feedback, and authentic skill development. Student 2, for example, suggested "reducing the glitches and technical issues that could occur while learning." To preserve the work that they have completed on Blackboard, Student 10's idea was "to save it in another place like offline." Beyond resolving technical issues, Student 9 advocated for increasing the use of media such as photos and videos to provoke imagination and enhance memorisation:

> Apply photos and videos more than just writing and emails… you can save new knowledge inside your memory easier than just in writing. For example, if… you saw a fire… you can't just imagine how to react. The photo or video will help you better.

Student 11 agreed, recommending adding photos particularly in Part 1, to be self-studied by the students themselves: "In the first part… for example…

helmets, to compare them, they don't provide photos of helmets. With photos it will be much easier… because you can imagine, because I have never seen a metal helmet."

Teachers recommended thoughtful implementation strategies to maintain educational rigour while fostering technology's benefits. Teacher 3 suggested enhancements like "AI virtual instructors that give hot feedback while in conversation with trainees" and "more gamification, including using avatars in virtual worlds, trophies for achievements, and inter-trainee scoreboards." To improve engagement, Teacher 5 proposed restructuring content: "It might [help to] have videos for them to watch. It might [help to] have flashcards; they (the curriculum design team) … [should] try to gamify Parts 1 and 2 a little bit… to make it more appealing." Teachers also suggested exploiting technology for progress monitoring, as Teacher 3 proposed: "Making a dashboard available to teachers that reports student usage in real-time… would allow for teachers to better track trainee performance." This would enable more responsive teaching, bridging gaps between independent study and classroom instruction.

Trainees also highlighted certain areas for improvement. Trainee 4 suggested filling content gaps with supplementary materials on Blackboard: "There [weren't] any resources for us to learn about punctuation… having some resources available on Blackboard itself would be more like useful." Some trainees advocated for more dynamic learning experiences. Trainee 6 commented: "Screen time should be less. We had six periods of screen timing. Maybe this could be reduced… to four or three periods and make the rest of the periods interactive learning." Trainee 4 added: "Many applications, websites, can be used to enhance the learning experience. One of them is Kahoot, another one is Socrative, which is used for giving small exams." Trainee 2 wanted to "make online learning more fun… Let's say a conversation from a TV show. We learn from it, and then we practice it."

Trainers proposed innovative technological solutions to enhance learning outcomes. Trainer 2 suggested immersive approaches: "Integrating AR simulations and interactive eLearning with emphasis on job skills topics will help

enhance the trainees' knowledge of both written and spoken terms related to job skills." Trainer 6 endorsed innovative tools based on positive experiences: "I tried IVR with the students… That thing is brilliant." Recognising the complementary nature of technology and human instruction, Trainer 4 advocated for comprehensive resources: "Online books, online resources on the platform." Trainer 4 further elaborated on balancing AI with instructor support: "We can have two options; either AI or an instructor… they can explain further." This hybrid approach would provide immediate support while preserving the depth of human interaction.

These recommendations for technology integration imply important considerations for enhancing both the self-directed component (RQ1.2) and the authentic learning context (RQ1.3) of the Blended Learning model. The stakeholders' emphasis on engagement, personalised feedback, and simulation tools reveals a shared understanding that technology should serve pedagogical goals rather than drive them. Particularly noteworthy is the call for balanced implementation that supports meaningful human interaction while capitalising on the advantages of technology – a perspective that aligns with social constructivist principles. These findings suggest that future improvements of the Blended Learning model should focus not simply on increasing technology use but on more strategic integration that addresses the specific vocational communication needs of learners in the oil and gas industry.

5.5. Implementation Effectiveness and Challenges

The data analysis revealed a range of opinions and experiences about the implementation and effectiveness of the Blended Learning model. While many participants acknowledged its potential benefits, various challenges and areas for improvement were also highlighted.

5.5.1. Perceived Benefits of Blended Learning

The integration of Blended Learning modalities was beneficial, offering flexibility, accessibility, and enriched learning experiences. Participants highlighted how the combination of self-directed study and face-to-face

instruction allowed learners to engage with materials at their own pace while still receiving structured guidance. This dual approach accommodated diverse learning preferences and reinforced comprehension through repeated exposure and practical application.

Students appreciated the complementary nature of in-class and online methods, which created a structured yet flexible learning environment. As detailed in Section 5.1.3, the self-directed component empowered time management and personalised engagement, while classroom instruction provided essential structure and guidance. This synergy between modalities created a comprehensive learning ecosystem that supported diverse skill development needs.

The structured yet flexible nature of Blended Learning was seen as effective for language acquisition by teachers as well. Teacher 2 explained: “[It] provides trainees with a lot of examples and opportunities to practice the target language… [and] to self-correct their errors.” Teachers also noted that pre-class preparation through self-study allowed classroom time to focus on higher-order skills. Teacher 3 observed: “[It] allows [students] to go at their own pace and repeat as necessary, while also allowing for more productive skill practice to happen in class time.” Teacher 4 summarised: “[The two modalities] bring unique strengths, creating a learning environment that empowers students to take control of their educational journey.” The blended approach accommodated individual learning preferences and encouraged active engagement, as Teacher 7 noted: “You’ve got different learning styles… Some trainees probably don’t like to use the iPad… they like to come and do it face-to-face with the teacher… You’ve also a trainee that works through just reading.” This adaptability enabled the learners to engage with content in ways that suited them best.

Trainees appreciated how Blended Learning bridged gaps between theoretical knowledge and practical application, enabling a smooth transition into job skills training. The structured progression through language training improved comprehension and communication abilities. Trainee 4 noted: “Going through

that academic part of the programme, we get used to talking fast because, if you go to the job skills immediately, you may have hard time." Beyond formal training, trainees reinforced their knowledge outside the classroom. Trainee 8 shared: "Some [words] that are interesting to me... I'd write them down on my phone, and so when I go home, I'll search for the definitions… the uses, and the sentences, and maybe try using those words in real life."

Trainers highlighted how Blended Learning prepared trainees for real-world demands by fostering their self-dependent learning skills, reflecting positively on their job skills training. Trainer 1 commented: "Trainees are following links, they access the lessons multiple times, and [they] improve comprehension with audio visual learning experience. This also equips them to search for online knowledge resources." The ability to review materials independently before practical sessions was seen as a key strength that trainers wanted to bring to job skills classes. Trainer 4 explained: "It's better if we can implement the blended mode also here in job skills … so that when they start the programme… they have a prior knowledge so they can spend more time here in their practical activity."

The perceived benefits of Blended Learning highlight its alignment with RQ1's focus on vocational needs, as participants valued how the model's flexibility supported authentic learning contexts. The structured progression through academic content, coupled with opportunities for self-paced study, created a learning environment that resembled the workplace expectation of independent yet collaborative work. This balance between autonomy and guidance seems particularly suited to the Saudi vocational context, where learners are transitioning from traditional educational approaches to more self-directed professional practices.

5.5.2. Challenges Related to Blended Learning

The implementation of Blended Learning revealed several challenges, particularly concerning motivation, engagement, and time management. Learners reported difficulties keeping motivation for independent study,

particularly in online environments. Without the immediate presence of peers or instructors, many found it challenging to stay engaged. Some students directly associated low motivation with remote learning. For instance, Student 1 admitted: “I lose motivation online and easily give up,” while Student 5 noted: “Motivation will sometimes drop at home, or there will be no motivation.” Others linked their struggles to a lack of external incentives or personal interest. Student 12 explained: “If there’s no score, and it’s not necessary to do that now, and I’m not interested in that topic, I’m not going to do that alone. You need to motivate me to do that.”

Teachers faced difficulties in monitoring engagement and ensuring the integrity of self-directed work. Teacher 3 noted: “Another issue is knowing if students have actually done the assigned homework.” Some learners bypassed meaningful study by copying answers. Teacher 6 explained: “Data in Blackboard shows that they spend, what, one minute, two minutes, because then they would go home, WhatsApp their friend… Can you tell me the answer?” The fast-paced nature of the curriculum also risked superficial learning. Teacher 2 cautioned: “There is a concern that students may be [doing] rote learning in order to pass rather than meaningful learning.” To address this issue, some instructors tailored lessons to real-world scenarios to encourage deeper engagement. Teacher 4 concluded: “Addressing these issues is still a challenge for most teachers,” which highlights the ongoing need for adaptive solutions in Blended Learning.

Time management was another challenge for learners navigating the Blended Learning environment. Some found it difficult to balance online assignments with in-class responsibilities. Student 1 highlighted this struggle: “Blended Learning is hard because it’s tough to manage online and in-class work.” Student 5 agreed: “I didn’t know how to manage my time between class and online work.” The overlapping demands sometimes left students feeling overwhelmed. Trainee 5 added another layer to this challenge: “We would finish Part 3 so fast. This was one of the biggest disadvantages… we would have six periods for just Part 3, which was way too much.” This uneven pacing complicated time management, as some tasks required more attention than

others. The volume of tasks added to the pressure. Student 13 described this experience: “We take two functions per day… five working days in the week… we don’t have much time. So, we keep all these tasks to do them in the weekend.” While some students appreciated the flexibility of self-directed learning, they acknowledged the need for strong self-discipline to stay on track. Student 12 reflected on this: “In self-directed learning, a big advantage… is the flexibility to make my own time. But I think you need to have… really strong self-control.”

The social dimension of learning was also affected by the Blended Learning approach. While self-directed learning encouraged individual practice, it sometimes weakened the collaborative interactions essential for language development, particularly affecting technical vocabulary acquisition. As discussed in section 5.2.4, this created challenges with terminology comprehension and application in the target vocational context. Teacher 6 emphasised the value of social interaction for language learning: “They need to have that interaction with the teacher, with their friends to be able to understand.” When learning became solitary, students missed opportunities for peer feedback and real-time dialogue that would otherwise reinforce technical terminology acquisition.

These challenges reveal important tensions in addressing RQ1.2 regarding how self-directed learning supports vocational skill development. The findings suggest that while the Blended Learning model theoretically supports independent learning, its practical implementation in vocational contexts requires stronger motivational scaffolding and clearer connections to workplace relevance. The social dimension challenges also indicate a need to reconsider how the model creates opportunities for collaborative learning that reflect authentic workplace communication patterns.

5.5.3. Suggestions for Improvement

Suggestions were proposed to enhance Blended Learning by increasing engagement, ensuring relevance to professional contexts, and strengthening

support systems. These recommendations highlighted the need for more interactive activities, job-specific content, and personalised guidance to create a more effective and motivating learning experience.

Student 2 emphasised the importance of clearer differentiation between self-directed and in-class components, proposing “more online exercises and more speaking practice in class.” Student 1 stressed the value of structured support mechanisms, enlisting “better feedback to improve myself… group work with my classmates… and… having a way to track my progress” as key motivators for learners. The call for better real-world relevance came up as well, with Student 7 recommending “adding more scenarios from the real world and… [aligning] the course to any update that happens in the field.” This was further supported by Student 9, who advocated for more visual learning aids like photos and videos, as mentioned in Section 5.4.3.

Teacher 1 recommended addressing support gaps, noting that “students need more technical support for using online tools,” which suggested that some learners struggled with the digital aspects of the blended approach. Teacher 3 advocated for incorporating game-like elements into the model, as mentioned in section 5.4.3., which would make the educational process more interactive and enjoyable. Alongside these recommendations, some teachers highlighted that there is still a need to tailor content to the learners’ specific professional requirements. Teacher 5 highlighted this gap: “They want things specific to their track, which is what this [model] is lacking… add this in the self-directed part… give them word lists… vocabulary… scenarios tailored to their job.” This sentiment was echoed by Teacher 1, who suggested “adding more job-specific videos and tasks.” Another suggestion was the proper integration of advanced technology. Teacher 4 proposed “using AI to personalise learning journeys and provide trainees with detailed feedback,” recognising the potential of adaptive learning systems to cater to individual student needs. However, Teacher 7 cautioned that “the online part needs to be a bit more exciting... it has to be different... and no glitches,” pointing to the dual challenge of creating engaging digital content while ensuring technical reliability.

Trainee 6 advocated for “reducing screen time… and making the rest of the periods more ‘interactive learning’ with in-class activities and games,” while Trainee 7 stated: “We cannot just sit on an iPad for the whole day.” These comments revealed a preference for active, collaborative learning over passive digital consumption. Trainees also emphasised the importance of face-to-face interaction with professionals. Trainee 1 remarked: “I would like to make meetings with professionals to be less online than face-to-face… [to] learn more about speaking with experts professionally.” To enhance engagement, suggestions were made to make learning more interesting. Trainee 5 recommended adding stimulating activities like “literature, because some people really like these stories… it has to be something that takes them out of the function and shows them the beauty of the English language [instead] of just using it in business.” Some trainees highlighted the potential for filling gaps in learning resources. Trainee 3 noted: “There’s a vacancy… that the Blended Learning model could fill… by adding reading and listening… as in, what does the sentence mean, or listening to a prompt and then answering.” Trainee 8 called for more job-relevant vocabulary, “to change some of the vocabulary that we took… it doesn’t actually affect our job skills … I think that a change needs to be made there.”

Trainer 7 stressed the importance of precise academic explanations, advising, “trainees can be assisted from the academic side to spot these differences in the meanings. For example, what do we mean when we talk about… ‘contaminant’? Do not only relate it to poison... use the correct information.” This emphasis on accurate terminology was seen as crucial for developing professional competence.

These stakeholder recommendations address the challenges recognised in implementing a Blended Learning model that effectively supports vocational English development (RQ1). The emphasis on interactive activities, job-specific content, and personalised guidance reveals how the current model could be enhanced to better integrate face-to-face instruction (RQ1.1) with self-directed components (RQ1.2). Particularly important is the call for greater workplace relevance, which speaks directly to RQ1.3’s focus on authentic learning

contexts. These suggestions highlight the importance of a flexible approach to Blended Learning implementation, where stakeholder feedback continuously informs the refinement of the model to ensure it remains responsive to the evolving needs of vocational learners.

5.6. Visual Representation of the Findings

Figure 2 presents the findings as an evaluation framework for Blended Learning in vocational contexts.

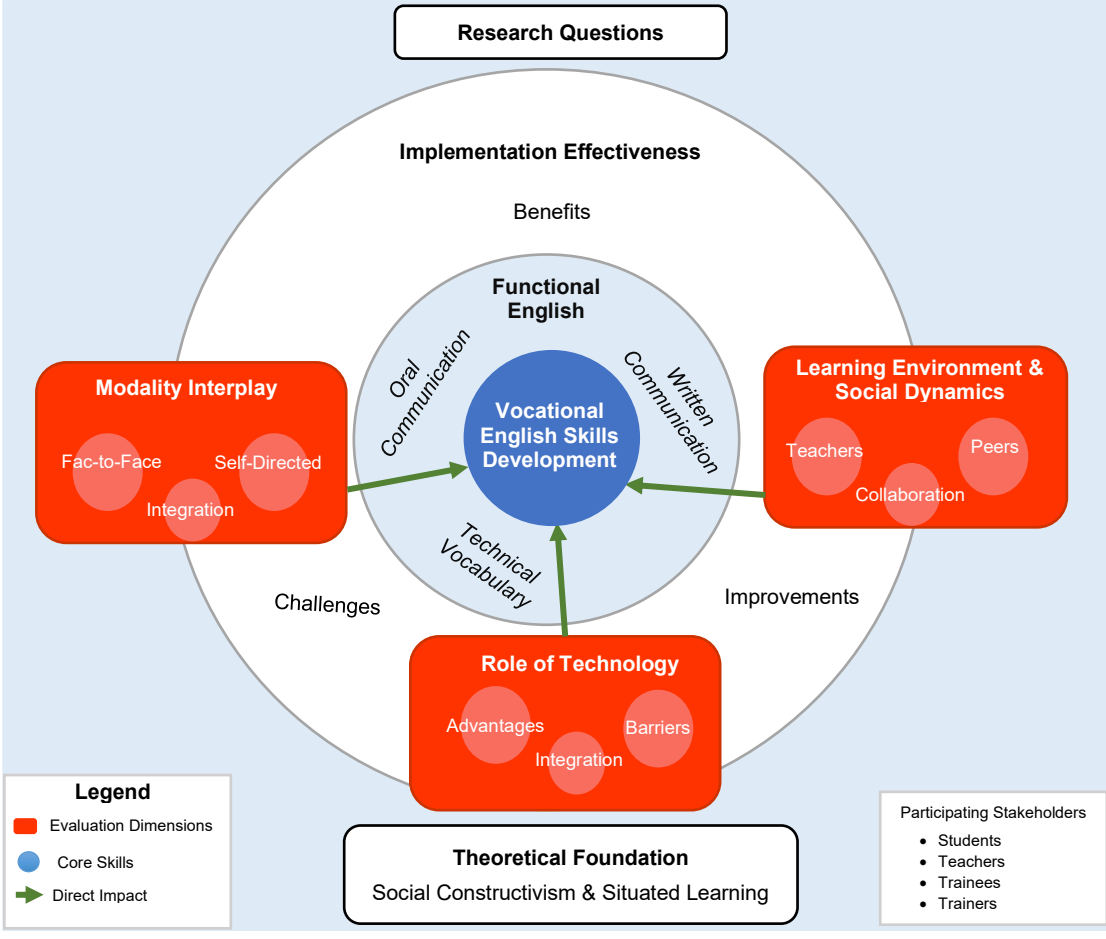

Figure 2: Findings as an Evaluation Framework

5.6.1. Process of Creating the Evaluation Framework

The evaluation framework presented in Figure 2 emerged through a deliberate process of synthesis and abstraction that occurred during the final stages of thematic analysis. As themes became stable and their relationships to one

another clearer, it became apparent that they could be organised into a structure that would serve not merely as a visual summary of findings but as a practical tool for evaluating Blended Learning in vocational contexts.

The process of creating this framework involved several key steps. First, I mapped the five main themes onto the central research question and sub-questions, recognising that each theme addressed particular aspects of how the Blended Learning model supports vocational English development. This mapping revealed that the themes clustered into distinct evaluative dimensions: instructional design (Theme 1: The Interplay Between Modalities), learning outcomes (Theme 2: Vocational English Skills Development), learning environment quality (Theme 3: The Learning Environment and Social Dynamics), technological effectiveness (Theme 4: The Role of Technology), and overall implementation effectiveness (Theme 5: Implementation Effectiveness and Challenges). These dimensions represented different lenses through which the model could be evaluated.

Second, I considered which sub-themes within each main theme represented core evaluative criteria – the aspects that would need to be examined in any thorough assessment of a Blended Learning model in this context. For example, within Theme 2 (Vocational English Skills Development), the four sub-themes about functional English, written communication, oral communication, and technical vocabulary represented distinct skill domains that should be assessed separately rather than treated as a monolithic 'language development' outcome. Similarly, within Theme 4 (The Role of Technology), the three sub-themes captured different facets of technology integration (advantages, barriers, and pathways to improvement) that would need separate attention in evaluation.

Third, I reflected on the relationships between themes and how evaluation findings in one dimension might influence or be influenced by findings in others. This led to organising the framework to show progressive layers of evaluation, moving from the structural (how modalities are integrated) through outcomes (what skills are developed), environment (what conditions support learning),

technology (what tools enable or hinder learning), to overall effectiveness (what works, what does not, and what should change). This progression mirrors the logical flow of evaluation questions: How is the model structured? What does it achieve? Under what conditions? Through what means? And how well overall?

5.6.2. Evaluation Framework's Intended Audience and Context of Use

The intended audience for this evaluation framework comprises multiple stakeholder groups, each of whom can use it in complementary ways to inform their practice and decision-making. For educational practitioners – the teachers and trainers implementing Blended Learning programmes – the framework offers a systematic checklist of dimensions to consider when reflecting on their teaching practices and their students' experiences. Rather than relying solely on test scores or informal impressions, practitioners can use the framework to systematically examine whether face-to-face and online components are genuinely complementary (Theme 1), whether all required skill types are being adequately developed (Theme 2), whether the learning environment supports necessary social dynamics (Theme 3), whether technology is being used effectively (Theme 4), and what specific challenges need addressing (Theme 5). For example, a teacher noticing that students struggle with technical vocabulary might use the framework to diagnose whether the issue stems from insufficient integration between modalities (Theme 1), lack of authentic workplace connection (Theme 2), inadequate peer interaction opportunities (Theme 3), or technology that does not support vocabulary development effectively (Theme 4).

For curriculum designers and administrators, the framework provides an organisational structure for planning and conducting programme evaluations. Rather than evaluating Blended Learning as a single entity to be judged simply 'effective' or 'ineffective', the framework enables nuanced assessment across multiple dimensions, each of which may require different types of evidence and may point towards different types of improvements. Administrators might use the framework to structure feedback collection from various stakeholders, ensuring that surveys, interviews, or focus groups address all relevant

dimensions rather than focusing narrowly on satisfaction or test performance. They might also use it to identify priorities for intervention: if evaluation reveals that modalities integrate well (Theme 1) and technology functions effectively (Theme 4) but workplace authenticity is weak (Theme 2), then resources should be directed towards strengthening industry partnerships and developing more contextually relevant learning materials rather than towards technological upgrades or pedagogical training.

For institutional leaders and policy makers, the framework offers a comprehensive view of what constitutes effective Blended Learning in vocational education, helping to set appropriate expectations and allocate resources wisely. Rather than adopting Blended Learning based on general claims about its benefits, leaders can use the framework to ask specific, critical questions about implementation: Are both modalities genuinely contributing to learning or is one merely supplementing the other? Are all skill types being adequately addressed or are some receiving insufficient attention? Is the learning environment supporting or hindering social knowledge construction? Is technology enabling authentic learning or creating additional barriers? What specific challenges are emerging and what resources are needed to address them? These questions can inform funding decisions, professional development priorities, and quality assurance processes.

For researchers investigating Blended Learning in vocational contexts, the framework provides a conceptual structure that can be adapted or tested in other settings. The five thematic dimensions identified here – modality integration, skill development, learning environment, technology effectiveness, and overall implementation – represent aspects of Blended Learning that are likely to be relevant across different vocational domains and institutional contexts, even if the specific findings within each dimension vary. Researchers might use this framework as a starting point for developing context-specific evaluation tools, or they might use it to structure comparative analyses across different Blended Learning implementations, examining which dimensions show consistency across contexts and which are more sensitive to local conditions.

Finally, for the organisation that participated in this study, the framework serves as a concrete output that can guide ongoing programme improvement. Unlike a typical research report that presents findings and recommendations in narrative form, the framework offers a structured tool that can be revisited repeatedly as the Blended Learning model continues to evolve. Programme coordinators can use it to track progress over time – conducting periodic evaluations across all five dimensions to see whether improvements in one area (such as technology reliability) lead to better outcomes in others (such as skill development or student engagement). They might also use it to structure dialogue between different stakeholder groups: rather than relying solely on administrators' or researchers' interpretations of 'what works', the framework provides a shared language and structure within which teachers, students, trainees, and trainers can all contribute their perspectives on how effectively the model is functioning.

The framework is intentionally designed to be flexible rather than prescriptive in its application. It does not specify particular methods for gathering evidence about each dimension (such methods would need to be appropriate to specific contexts and resources), nor does it impose predetermined standards for 'success' in each area (such standards would need to reflect local goals and constraints). Instead, it offers a conceptual structure that ensures comprehensive evaluation while allowing adaptation to different circumstances. For example, an organisation with limited resources might conduct rapid evaluation by gathering brief qualitative feedback from students and teachers about each dimension, whereas an institution with more extensive resources might conduct detailed mixed-methods evaluation combining surveys, interviews, observations, and assessment data across all dimensions.

In this way, the visual representation of findings serves multiple purposes simultaneously: it provides a concise summary of this study's results, it offers a conceptual contribution to understanding Blended Learning evaluation, and it provides a practical tool that various stakeholders can adapt and use to improve their own programmes. The framework thus bridges the gap between research and practice, translating detailed empirical findings into an accessible structure that can inform ongoing improvement efforts in vocational education.

Conclusion

The findings presented in this chapter underscored the complex interplay of pedagogical, technological, and social factors shaping the efficacy of Blended Learning in vocational English settings. Stakeholder perspectives revealed a synergistic relationship between face-to-face and self-directed modalities, with the former excelling in fostering oral communication and immediate feedback (addressing RQ1.1) and the latter enabling personalised pacing and technical vocabulary acquisition (addressing RQ1.2). However, challenges such as motivation inclinations in self-directed learning, misalignment of technical vocabulary with job-specific needs (RQ1.3), and over-reliance on technology highlighted tensions in the model's implementation. The data further emphasised the centrality of functional communication skills for workplace readiness, particularly in structured writing and presentations, while also exposing gaps in contextual authenticity and support systems. These outcomes directly inform the study's central problem: optimising the Blended Learning model to balance autonomy and scaffolding in vocational contexts.

Together, the five themes presented above constitute a multi-faceted evaluation framework that examines the Blended Learning model from complementary angles: instructional design, skills development, social dynamics, technological affordances, and systemic effectiveness. Their interconnection reveals how pedagogical approaches, learning environments, technological tools, and social interactions collectively shape vocational language acquisition within this specific Saudi Arabian context. By systematically addressing these dimensions, the findings provided a comprehensive picture of how the Blended Learning model supports (or could better support) the development of vocationally relevant English language skills (RQ1).

The next Discussion chapter continues interrogating these findings through the lens of Social Constructivism and Situated Learning, evaluating their implications for Blended Learning design in the Saudi vocational context. By situating these findings within relevant debates in earlier research, the

discussion proposes actionable refinements to bridge the identified gaps between pedagogical intent and learning outcomes.

Chapter 6: Discussion

This chapter discusses the findings presented in Chapter 5 through the theoretical lenses of Social Constructivism and Situated Learning – which provided the conceptual foundation for this study – to evaluate the effectiveness of the Blended Learning model in teaching vocational English skills. The discussion is structured around the research questions that guided this study, with the main research question being: *How does the Blended Learning model implemented in a vocational training organisation in Saudi Arabia support the development of English language skills that are relevant to the learners' vocational needs?* The discussion dives deeper than surface-level evaluation into sifting the underlying processes and contexts that shaped language development within the target model. This approach aligns with Prosser's (2011) argument for evaluation methods that capture the nuanced ways in which students experience learning, providing a richer understanding than quantitative measures alone can offer. Through connecting empirical findings with theoretical principles and previous research, this chapter examines how Blended Learning can effectively support vocational English development in industrial training contexts.

6.1 Theoretical Reflections on the Findings

The analysis revealed how the study's theoretical framework illustrates the processes of knowledge construction, contextualised learning, and community participation that shaped vocational English development within the Blended Learning environment.

6.1.1 Social Constructivism in Blended Vocational Learning

The findings of this study presented rich insights into how social constructivist principles function within a Blended Learning vocational context. Social Constructivism, as discussed in Chapter 3, emphasises that knowledge is not just transmitted but actively constructed through social interactions and collaborative experiences (Pritchard & Woollard, 2010). This theoretical

perspective is particularly relevant to language acquisition, where meaning-making is inherently social and contextual. The data presented in Chapter 5 largely aligns with key social constructivist tenets, while also revealing certain tensions within the Blended Learning model.

The face-to-face component of Blended Learning aligned with social constructivist principles, as classroom interactions enabled collaborative knowledge building. The current study revealed this collaborative approach as central to developing communicative competence, with students and teachers working together through activities that were crucial mechanisms for vocational English skill development (Section 5.3). Rather than following a linear progression, social interaction and individual learning processes operated in tandem, mutually reinforcing each other throughout this development. This supports McLoughlin and Luca's (2006) assertion that students and teachers share responsibility in knowledge building. Peer discussions, collaborative writing exercises, and interactive games like 'Taboo' enabled learners to negotiate meaning collectively, building shared understanding of language forms and functions. This aligns with Guile and Unwin's (2019) view of collaborative knowledge building.

Another important insight about Social Constructivism appeared in the tension between independent study and social knowledge construction (Sections 5.1.2 and 5.5.2). While social and individual learning processes reinforced each other within collaborative classroom activities, the self-directed component, though valued for its flexibility and personalisation, sometimes conflicted with the social constructivist principle that knowledge is built through collective meaning-making. Students reported challenges in sustaining motivation during independent study when it was detached from social context, implying that such separation may reduce engagement and effectiveness. These tensions reveal what Fuller (2007) describes as the contradictions that can arise in communities of practice, where the social dynamics of learning are complex and sometimes conflicting. Contrary to the harmonious community implied in some social constructivist accounts, the current findings suggest that Blended Learning environments may create discontinuities when social and individual learning

processes are not adequately integrated, necessitating intentional design to bridge the two.

Moreover, unlike Holovatska (2023) and Tretyakova et al. (2023), who found Blended Learning models significantly more effective than traditional approaches, this research presents a more nuanced view. The effectiveness of the model seems to depend on how well it balances individual and social learning processes, with neither face-to-face nor self-directed components being inherently superior (Section 5.1.3). This aligns more closely with Arrosagaray et al.'s (2022) observation that different modalities foster different aspects of language learning, with face-to-face instruction promoting motivation and self-efficacy and distance learning enhancing interest in the language itself.

6.1.2 Situated Learning in Vocational English Development

Situated Learning theory provides a proper framework for examining vocational English development, given its emphasis on learning as participation in authentic contexts and communities of practice (Lave & Wenger, 1991). The findings revealed several ways in which Situated Learning principles were reflected in the Blended Learning model, while also highlighting areas where authenticity and contextualisation could be enhanced.

The concept of Legitimate Peripheral Participation (LPP) was evident as apprentice trainees progressed from peripheral to central roles in their learning community. Trainees initially engaged in structured activities before advancing to complex workplace tasks, particularly in oral communication where they reported increased confidence (Section 5.2.3). This transformation reflects Lave and Wenger's (1991) description of developing identity through increasing participation in communities of practice. However, findings revealed limitations in academic environment authenticity, with trainers noting gaps between academic and job-specific terminology (Section 5.2.4). This suggests LPP was only partially achieved, with academic settings inadequately preparing trainees for workplace communities. This concurs with Wang and Sun's (2014) identification of discrepancies between students' self-perceived English

proficiency and industry requirements, highlighting challenges in aligning academic and workplace communities.

Authentic learning contexts proved crucial to the Blended Learning model's effectiveness. Learners engaged more deeply with workplace-relevant scenarios (Section 5.2.1), supporting Sislioglu and Demirel's (2015) emphasis on authentic language contexts in vocational training. However, participants noted gaps between the vocabulary taught in academic training and the specialised terminology required in technical settings (Section 5.2.4), alongside difficulties in replicating the complexity and contextual richness of real professional interactions within classroom activities (Section 5.2.3). These limitations highlight the practical challenges of creating fully authentic learning environments, though Anderson et al.'s (1996) work suggests that not all skills necessarily require complex social contexts for effective development.

Communities of practice within the Blended Learning environment took various forms, from formal classroom groupings to informal networks and digital communities such as WhatsApp groups (Section 5.3.2). These communities supported language development through shared resources and collaborative problem-solving, aligning with Henning's (2004) argument that learning requires diverse participatory relationships.

Technology played a dual role in creating Situated Learning experiences. Digital simulations provided opportunities for engagement with workplace-like scenarios (Section 5.4.1), supporting Jiang et al.'s (2024) observation that SPOC-based blended teaching fostered deep learning among vocational EFL students. However, technology sometimes undermined Situated Learning through decontextualised language use, particularly when learners over-relied on AI tools and other applications (Section 5.4.2).

These findings contribute to evaluation frameworks discussed in Section 2.3 by emphasising contextual authenticity in assessing educational models. Traditional approaches focusing on test scores may not capture how effectively models prepare learners for workplace communication. This suggests that

evaluations should consider how learning experiences facilitate LPP in relevant communities. When compared with Imelda et al.'s (2019) study on video-based mobile learning for writing skills, an important distinction appears. While Imelda et al. focused on technology's effectiveness for specific language skills, this research situates technology within a broader social framework, examining how it supports participation in professional communities. This perspective is essential for vocational language development, where success is measured by effective participation in workplace communication not just linguistic ability.

6.2 The Complementary Nature of Blended Learning Modalities

Face-to-face and self-directed learning components functioned as complementary elements within the Blended Learning model, each with distinctive strengths and limitations. Their integration created a comprehensive framework that supported diverse learning needs and skill acquisition processes.

6.2.1 Face-to-Face Learning: Strengths and Limitations

Face-to-face instruction played a crucial role in the vocational English training programme, offering benefits that directly supported the development of workplace communication skills (Section 5.1.1). Physical classroom settings provided a rich environment for oral communication development, immediate feedback, and social interaction that could not be fully replicated through digital means. However, the findings also highlighted certain limitations of traditional classroom instruction that the self-directed component helped to address (Section 5.1.2).

Physical classroom settings proved especially valuable for language development through social interaction. This exemplifies Vygotsky's (1978) Zone of Proximal Development (ZPD), with learners progressing through guidance from more knowledgeable others. The classroom environment created a scaffolded space that supported the development of various skills, particularly oral communication (Section 5.2.3). Teacher scaffolding and immediate feedback were central to face-to-face instruction, with teachers

adapting support based on real-time observations (this pedagogical approach is examined in greater detail in Section 6.4.1, which analyses how teachers' roles evolved within the Blended Learning environment). The importance of this immediate feedback offers an interesting extension to the findings of Cao et al. (2024), who reported that EFL students in a private Chinese university held negative attitudes toward Blended Learning, partly due to lack of support and timely feedback from teachers in the online part. Unlike their study, the current research suggests that when face-to-face components are effectively integrated with self-directed elements, the immediate feedback available in the classroom can compensate for limitations in the online environment. This finding reinforces the complementary nature of blended approaches when thoughtfully designed and implemented. Additionally, face-to-face instruction fostered rich social dynamics that prepared students for workplace communication demands through practices like peer review and speaking activities (as discussed further in section 6.4.2), extending Derlina et al.'s (2020) finding about Blended Learning promoting active participation.

Despite these strengths, the findings revealed certain limitations of traditional classroom instruction for specific learning needs (Section 5.1.2). Time constraints often restricted the depth of practice possible during class sessions. Additionally, classroom settings sometimes fell short in accommodating diverse learning paces and preferences, with some students requiring more time to practice independently. These limitations highlight that effective Blended Learning requires more than just social interaction in face-to-face settings; it also depends on providing flexible access to quality learning materials and systems that support individualised practice – a principle supported by Mirabolghasemi et al.'s (2021) finding that system quality and information quality are critical determinants of learner satisfaction in blended environments.

These findings parallel Mohamed's (2022) evaluation of face-to-face components in Blended Learning. Mohamed's study found that Saudi university undergraduates valued how the blended environment improved their learning outcomes, created a collaborative community, and fostered openness for expressing, sharing, and asking. Similarly, the current research highlighted how

face-to-face instruction fostered a collaborative learning community that prepared trainees for workplace interaction. However, while Mohamed noted that students enjoyed transitioning between online and face-to-face learning, the current study revealed more complex attitudes toward this transition, with some students struggling to maintain motivation and engagement across modalities (Section 5.5.2).

6.2.2 Self-Directed Learning: Opportunities and Challenges

The self-directed component of Blended Learning offered unique opportunities for personalised language development while presenting challenges in motivation and engagement. This element enabled learners to progress individually and utilise digital resources beyond traditional classroom boundaries. However, effectiveness varied considerably based on individual learner characteristics and technological support quality.

Autonomy and personalisation were primary benefits, allowing learners to tailor experiences to their specific needs. This customisation allowed students with varying proficiency levels to allocate sufficient time to challenging areas without classroom pacing constraints (Section 5.1.2). This finding supports Tan et al.'s (2022) observation that high-achieving language learners in Blended Learning environments exhibited strong self-learning capabilities and strategic autonomy. The current study expands these findings by examining self-directed learning within vocational contexts where language served specific workplace purposes. Findings proved autonomy was particularly valuable for written tasks requiring careful drafting and revision (Section 5.1.2), suggesting self-directed approaches may be especially beneficial for language skills requiring reflective practice and iteration – a finding with significant implications for vocational language curriculum design.

Despite these opportunities, motivation and engagement challenges presented significant barriers. Many students reported difficulty maintaining motivation outside structured classroom environments (Section 5.5.2). This motivational challenge aligns with Butarbutar et al.'s (2023) documented barriers to online

collaborative learning, including technology issues and participation problems. The current research extends this understanding by examining motivation challenges within vocational contexts, where the findings suggest potential connections between task relevance and engagement that warrant further investigation.

These findings present a more nuanced picture than Gromoglasova et al.'s (2022) evaluation of online/distance instruction, which found university students enjoyed flipped classroom models for self-study skill improvement. The current research suggests self-directed learning both developed and challenged learners' self-regulatory capabilities. This difference may stem from vocational language learners' distinctive needs, where language acquisition serves immediate professional purposes rather than general academic development. This aligns more closely with Yasin et al.'s (2022) observation of significant differences in student satisfaction based on factors like field of study and GPA level, suggesting learner characteristics substantially influence self-directed learning experiences.

6.2.3 Modality Integration: Implications

The integration of face-to-face and self-directed components in the Blended Learning model created a dynamic educational environment with significant implications for vocational language development. These implications included both benefits and tensions, as explained in the following lines.

6.2.3.1 Synergistic Relationship

The findings revealed a synergistic relationship between face-to-face and self-directed components, creating a rich learning experience where each approach enhanced the other's effectiveness (Section 5.1.3). This relationship was particularly evident in the strategic sequencing of activities across modalities, creating effective learning cycles. This approach optimised classroom time for practical application rather than basic content delivery. For example, students described how online materials introduced workplace terminology that face-to-face instruction later clarified, allowing them to engage with concepts

independently before refining their understanding through collaborative activities.

This synergistic relationship connects to theoretical principles about effective Blended Learning design, particularly Garrison and Vaughan's (2008) emphasis on the thoughtful integration of in-class and online learning experiences. The current findings show how this integration can create what Means et al. (2014) describe as a coherent whole, where each modality contributes distinctively to the learning process while supporting a unified educational experience. Unlike Wang's (2021) study of blended collaborative teaching based on recommendation algorithms, which focused primarily on technological enhancements, the current research highlights the pedagogical dimensions of integration, emphasising how instructional sequencing and complementary activities create meaningful learning pathways.

6.2.3.2 Skill Development Distribution

The findings revealed notable patterns in language skill development across Blended Learning modalities. Oral communication skills benefited most from face-to-face instruction, which provided authentic speaking practice, immediate feedback and confidence-building opportunities that self-directed contexts could not fully replicate (Sections 5.1.1 and 5.1.2). Written communication skills, including email and report writing, were effectively developed through combined self-directed practice and classroom feedback (Section 5.2.2). Technical vocabulary acquisition showed a more complex pattern, as initial exposure often occurred through self-directed study, while contextualisation and accurate usage required teacher guidance (Section 5.2.4). These findings have significant implications for vocational curriculum design. Blended Learning models should strategically assign language skills to modalities where they can be most effectively developed rather than addressing all skills equally across components. This approach maximises the inherent strengths of each modality and ensures holistic skill development. Compared with Kieu et al. (2024), who found Vietnamese EFL lecturers perceived online teaching as just supplementary to in-class instruction, this study shows how a more integrated

approach can strategically distribute skill development across modalities, which would enhance overall learning effectiveness.

6.2.3.3 Personalisation vs. Standardisation

A notable tension existed between personalisation and the standardised outcomes required by vocational training programmes. While self-directed learning supported individual pacing, all trainees apparently needed to achieve standardised competencies to meet industry requirements, which necessitated consistent assessment and progression tracking. The Blended Learning model attempted to balance these competing demands through several strategies. The self-directed component provided flexible learning pathways while maintaining standardised content and assessment criteria, offering personalisation within a structured framework (Section 5.1.2). Additionally, the face-to-face component ensured that all learners received similar guidance and feedback, while allowing for differentiated support based on individual progress in self-directed activities (Section 5.3.1). This approach reflects Jiang et al.'s (2025) finding that systematic instructional design within SPOC-based Blended Learning can effectively support individual progress through comprehensive feedback systems while maintaining standardised assessment criteria, demonstrating how structured frameworks can accommodate diverse learner needs.

However, challenges remained in balancing personalisation and standardisation, particularly regarding assessment. For example, students noted that sometimes conflicting expectations between teachers and assessors created confusion (Section 5.3.1). This highlights the need for clearer alignment between personalised learning pathways and standardised assessment criteria, a challenge also reported by Alzubi et al. (2022) in their investigation of online versus offline assessment methods in higher education.

6.2.3.4 Time and Space Flexibility

The Blended Learning model affected how learning occurred across temporal and spatial boundaries, offering both benefits and challenges for vocational

language development. The self-directed component enabled learners to engage with materials at convenient times and locations. This flexibility allowed learners to integrate language practice into their daily routines and extend learning beyond scheduled class hours, potentially increasing overall engagement with the target language (Section 5.1.2). This finding reinforces Chen and Lee's (2024) observation that college students had positive experiences with Blended Learning, by specifying how this approach prepares learners for the temporal and spatial flexibility needed in professional contexts. However, this temporal and spatial flexibility also presented challenges for learners accustomed to more structured educational environments. Attempting to balance face-to-face and self-directed activities created an additional cognitive load for some learners (Section 5.5.2), which resonates with Le et al.'s (2022) identification of time consumption and demotivation as drawbacks in Blended Learning implementation.

6.3 Vocational English Skills Development

The findings revealed varying levels of effectiveness across different skill domains, with implications for how language training can be better aligned with professional communication requirements.

6.3.1 Functional English for Workplace Readiness

The central focus of the Blended Learning model was the development of functional English skills for workplace readiness. The findings revealed how the model prepared learners for professional communication through targeted language functions, contextualised tasks, and workplace scenarios (Section 5.2.1). However, certain gaps between academic training and workplace demands were detected, highlighting areas for further enhancement (Section 5.2.4).

The model's focus on communication patterns necessary for the oil and gas sector manifested correspondence to industry demands. This emphasis on hierarchical communication reflects Louhiala-Salminen and Kankaanranta's (2012) argument that effective communication is essential for collaboration in

globalised industries. Incorporating language functions relevant to workplace scenarios aligns with Billett's (2011) emphasis on tailoring vocational education to evolving industry needs. However, challenges remained in aligning academic training with workplace requirements, as discussed further in Section 6.3.4.

These findings connect to Al Shdaifat et al.'s (2022) evaluation of an English e-curriculum but provide more nuanced insights through the perspectives of multiple stakeholders, including former students now in technical training. This broader evaluation scope highlights the importance of including industry perspectives in curriculum evaluation. The findings also expand upon Sislioglu and Demirel's (2015) conclusion that competence of English language was a prerequisite of conducting all aspects of maritime activities successfully and safely by specifying how functional language preparation contributes to workplace readiness in industrial settings. By focusing on language functions directly related to safety procedures, hierarchical reporting, and technical operations, the Blended Learning model aimed to develop the communicative competencies essential for successful participation in the oil and gas industry (Section 5.2.1). However, the gaps found between academic and workplace communication highlight limitations in the current approach, which subsequent sections will address.

6.3.2 Written Communication in Professional Contexts

As noted in Section 6.2.3.2, written communication skills were effectively developed through a blend of self-directed practice and classroom feedback. This section examines in greater depth how the model supported these essential workplace skills, with implications for curriculum design and instructional practices.

The sequenced instructional design – where students initially encountered writing formats through self-directed study before applying them in collaborative classroom activities – created an effective learning cycle for professional writing development (Sections 5.1.3 and 5.2.2). This structured approach concurs with what Hyland (2007) described as essential for developing written skills in

vocational contexts: genre-based writing tasks, collaborative writing exercises, and feedback sessions to refine learners' abilities. Students confirmed the effectiveness of this approach, highlighting, for example, the workplace relevance of email writing. They also reported significant improvements in their writing abilities through this structured practice, noting progress from uncertainty to competence (Section 5.2.2). The model's focus on such authentic workplace communication formats reflects Basturkmen's (2006) emphasis on practical language skills essential for effective workplace performance. Challenges, however, persisted with technical writing skills, particularly spelling accuracy and specialised terminology (Sections 5.2.2 and 5.2.4), affirming Luo et al.'s (2024) finding that despite improvements, vocational college students continued to face difficulties achieving professional-level writing proficiency.

When comparing these findings with Ghouali and Ruiz-Cecilia's (2021) evaluation of technology-based assessment for writing performance, an interesting contrast is noticed. Although they found that Moodle-based e-assessment had a significant effect on the performance of the participants due to its pedagogical, practical, and emotional attributes, the current research presents a more complex picture where technology both supports and potentially undermines written skill development. The immediacy of digital feedback certainly accelerated aspects of writing improvement, but the findings suggest that overreliance on technological assistance may hinder the development of foundational writing skills necessary for workplace contexts where such assistance may not always be available (Section 5.4.2).

The implications for workplace communication are significant, as written documentation in industrial settings often requires precision and adherence to standardised formats. The findings suggest that while trainees developed competence in basic professional correspondence, challenges remained in producing the highly technical documentation required in their future roles (Sections 5.2.2 and 5.2.4). This indicates that while the Blended Learning model successfully developed functional writing skills, more specialised technical writing abilities still require further development through contextualised practice in authentic workplace genres.

6.3.3 Oral Communication for Professional Settings

The value of classroom interaction for developing presentation skills was highlighted across participant groups, directly preparing trainees for workplace presentations (Section 5.2.3). This finding aligns with Cullen's (2013) emphasis on the importance of oral skills in vocational English, enabling professionals to interact effectively in workplace settings through activities such as delivering presentations and participating in meetings. The immediate feedback available in face-to-face settings allowed for refinement of both content and delivery (Section 5.3.1). Another significant outcome of the oral communication training was confidence building through structured speaking. As explained in the findings, trainees reflected on this transformation, describing their personal growth from hesitancy to competence (Sections 5.1.1 and 5.2.3). This reflects what Hutchinson and Waters (1987) described as addressing the real-world communication needs of learners, which often involve oral interactions.

Nevertheless, classroom activities sometimes lacked the complexity and contextual richness of real professional environments, particularly for industry-specific scenarios (Section 5.2.4). This limitation has implications in high-risk environments like oil and gas operations, where Henderson (2005) recognised clear and precise communication as critical. While general conversational abilities were well-developed, more specialised communicative functions could be further enhanced through collaboration between language instructors and technical specialists.

These findings extend research on oral skills in professional contexts by highlighting how structured classroom activities can directly prepare learners for workplace communication demands. Unlike general academic exchanges, the activities described by participants focused specifically on industry-relevant scenarios such as safety briefings, technical explanations, and procedural instructions (Sections 5.2.1 and 5.2.3). This specificity ensured that oral skills were developed within authentic contexts that reflected the communication patterns of the target workplace, aligning with Dudley-Evans and St John's

(1998) recommendation for role-playing, simulations, and task-based activities that mirror real-world scenarios.

6.3.4 Technical Vocabulary Acquisition

Nation (2001) argues that vocabulary learning is central to vocational English instruction, directly impacting learners' communicative capabilities in their fields. The acquisition of technical vocabulary came to light as a complex area within the Blended Learning model, highlighting gaps between the vocabulary taught in the academic section and the terminology required in technical training, which suggested a need for more industry-specific language instruction.

6.3.4.1 Technical vs. General English Skills

The Blended Learning model highlighted tensions between specialised and general language development. While general English proficiency supported effective workplace communication, trainers noted it often dominated technical vocabulary development (Section 5.2.4). This balance has significant implications for career development, as immediate job roles require specialised terminology, yet broader communication skills support career advancement and adaptability. These findings connect to ongoing debates about specific versus general purpose language training. Johns and Price (2018) emphasise tailoring vocational English to specific occupational requirements while acknowledging transferable communication skills that apply across professional settings. This research suggests a balanced approach is necessary, with core communicative competencies supplemented by specialised vocabulary. This echoes Brock's (2010) recommendation that vocational English programmes should be designed based on workplace needs assessments.

When compared with Lebedieva et al. (2023), who found that corpus linguistics methods increased professional communicative competence, this research highlights implementation challenges across diverse technical specialisations within a single programme (Sections 5.2.4 and 5.5.3). This suggests the need for flexible curricular structures accommodating different vocabulary needs without compromising core communicative competencies. The findings

advance understanding of vocabulary acquisition in Blended Learning by showing how different modalities supported varied aspects of development. Self-directed learning facilitated initial exposure to new terms, and face-to-face interaction provided contextualisation (Section 5.2.4). This integrated approach builds upon Jankauskaitė-Jokūbaitienė's (2023) finding that digital tools support vocabulary acquisition yet acknowledging the irreplaceable value of teacher guidance in ensuring accurate understanding.

6.3.4.2 Alignment with Industry Demands

The findings revealed that while the programme developed general vocational vocabulary, it did not sufficiently address the specialised terminology required for specific technical roles in the oil and gas industry (Section 5.2.4). This gap between academic and workplace vocabulary resonates with Wang and Sun's (2014) finding of discrepancies between university students' self-perceived English proficiency and industry requirements in the hospitality sector. However, the current findings advance this understanding by specifically highlighting technical vocabulary as a critical alignment area in industrial vocational training. Coxhead (2000) emphasised that effective approaches to teaching technical vocabulary should include word lists, contextualised learning activities, and multimedia resources. Reflecting this recommendation, participants stressed the need for more targeted vocabulary preparation tailored to specific job tracks (Section 5.5.3).

6.3.4.3 Transferability of Knowledge

The transferability of vocabulary knowledge from academic to technical training contexts varied considerably, with certain factors either enabling or hindering this transfer (Section 5.2.4). Trainees reported successful application of learned vocabulary in their technical studies. This illustrates successful knowledge transfer between learning contexts, reflecting what Lave and Wenger (1991) described as LPP, where learners gradually apply knowledge in authentic professional settings. However, the mismatch between general business

terminology and specialised technical jargon limited transferability, as trainees found entirely new lexical sets in their technical training.

These findings connect to Situated Learning principles about knowledge application, particularly Brown et al.'s (1989) critique of the theoretical separation between knowing and doing. They argued that knowledge is inseparably situated in the physical and social context of its acquisition and use, suggesting that vocabulary learning should occur within authentic contexts that mirror the settings where terms will be applied. The current findings confirm this principle (Section 5.2.4), showing that industry-specific vocabulary aligned with trainees' actual job roles transferred more successfully than generic business terminology that lacked relevance to their technical specialisations.

6.4 The Learning Environment and Social Dynamics

This section explores how the social context and interpersonal relationships within the Blended Learning environment influenced vocational English development. The findings highlighted the critical roles of teachers, peers, and technology in creating a learning ecosystem that fostered, and sometimes complicated, the social construction of knowledge relevant to workplace communication.

6.4.1 The Teachers' Role in Blended Learning

The implementation of the Blended Learning model transformed teachers' roles within the vocational English programme, shifting them from primary knowledge providers to facilitators, guides and coaches (Section 5.3.1). This facilitative approach aligns with McLoughlin and Luca's (2006) argument that teachers must reduce control and provide supportive rather than directive learning environments. The changing teacher role mirrors Kuzmina et al.'s (2021) findings regarding Blended Learning implementation for integrating foreign students into higher education. However, unlike their study, which focused primarily on student integration, the current research highlights how teacher roles evolved specifically to support vocational language development in an industrial training context.

Scaffolding strategies proved central to effective teaching within the target blended environment. Teachers employed various approaches in face-to-face instruction (Section 5.3.1) and designed the integration between modalities (Section 5.1.3), though they faced challenges monitoring engagement in self-directed components (Sections 5.1.2 and 5.5.2). These approaches reflected what Van de Pol et al. (2010) described as essential scaffolding features in vocational training: contingency (tailored support based on student needs), fading (gradual withdrawal of support), and transfer of responsibility (shifting control to the learner). Students valued this scaffolded guidance, highlighting the importance of accessible instructor support (Section 5.3.1), which supports Bates' (2016) research on effective educational scaffolding practices.

Nevertheless, teachers faced challenges implementing effective support across the blended environment. Primary concerns included difficulties monitoring engagement in self-directed components (Section 5.5.2), with classroom time constraints limiting depth of practice in face-to-face sessions (Section 5.1.2). These challenges reflect patterns found in Vietnamese contexts, where Kieu et al.'s (2024) study showed lecturers treated online components as add-ons with limited integration and minimal personalised feedback due to time constraints and heavy workloads. The current findings extend this understanding by revealing how even in intentionally designed blended environments, teachers face similar constraints in monitoring engagement and ensuring authentic learning in self-directed components.

These challenges have significant implications for professional development: effective teacher preparation should focus not only on technological competence but also on pedagogical strategies for guiding knowledge construction across different modalities. This aligns with Zou et al.'s (2021) observation that enhanced training and skills enable more effective online teaching and learning. Furthermore, the findings highlight the need for professional development addressing strategies for promoting authenticity and workplace relevance in Blended Learning vocational contexts (Section 5.5.3).

This research also contributes to understanding teacher roles by highlighting how teachers employed facilitative approaches, guiding and supporting learners while encouraging student-led activities and collaborative learning (Section 5.3.1). Like Le et al.'s (2022) research on technological barriers, the current findings revealed technical challenges with platform reliability and connectivity (Section 5.4.2), while also identifying pedagogical concerns about over-reliance on AI tools that undermined authentic skill development. This focus on pedagogical adaptation expands upon Wahyuningsih and Afandi's (2023) research, which found generally positive responses from EFL lecturers concerning Blended Learning despite challenges like limited time allocation and students' self-study unawareness.

6.4.2 Peer Interaction and Collaborative Learning

Peer interaction was a powerful mechanism for language development within the Blended Learning model. Students benefited from both formal classroom activities and informal study groups (Section 5.3.2). This collaborative approach aligns with Guile and Unwin's (2019) emphasis on learning through dialogue and social constructivist principles of collaborative knowledge construction. When peers with differential expertise worked together, these interactions reflected Vygotsky's (1978) Zone of Proximal Development concept with more knowledgeable peers providing scaffolding. Teachers intentionally structured activities promoting collaborative knowledge construction (Section 5.3.2), embodying Berger and Luckmann's (1967) social construction of reality concept. These findings also add to Aubrey and Chung's (2023) research on online communities of practice. While their study found that online communities stimulated positive attitudes towards research and provided emotional support, this research illustrates how peer interaction supported vocational language development through contextualised practice and feedback, deepening understanding of communities of practice in vocational language learning (Section 5.3.2).

Formal and informal peer support systems coexisted within the Blended Learning environment (Section 5.3.2). Within the classroom, structured peer

review and collaborative tasks assisted guided interaction. These formal systems were complemented by informal communication networks that extended learning beyond scheduled class time. These informal networks, as Fuller (2007) notes, enabled learners to develop shared resources and engage in mutual learning activities. Therefore, digital communication extended peer interaction beyond classroom boundaries. These findings align with Butarbutar et al.'s (2023) research on online collaborative learning for EFL speaking in rural Indonesia. However, while their study highlighted primarily technological barriers, this research highlights more complex social dynamics where learning effectiveness depends on both technological functionality and the quality of peer relationships.

Here, there are significant implications for course design, suggesting that Blended Learning models should intentionally foster both formal and informal peer learning opportunities. Structured collaborative activities should be incorporated into in-class and online components, with careful attention to how different modalities support distinct forms of peer interaction. Creating spaces for informal peer support can enhance learning outcomes by extending engagement beyond formal instructional settings.

These findings contribute to understanding how social constructivist principles manifest in vocational Blended Learning environments. As Akpan et al. (2020) argue, social constructivists view knowledge as actively built by learners through social interaction. This research shows how knowledge construction occurs through multiple channels – formal classroom collaboration, technology-mediated interaction, and informal peer networks – creating a complex ecosystem of social learning that supports vocational language development.

6.5 Technology Integration and Learning Dynamics

Technology integration into the Blended Learning model reshaped how learning occurs, creating both opportunities and challenges. This section looks at how digital tools affected learning, how students adapted, the technical problems they faced, and the balance between tech and teacher support.

6.5.1 Digital Tools as Mediators of Learning

The findings revealed how various digital tools within the Blended Learning model mediated different aspects of language learning, sometimes enhancing and sometimes impeding the educational experience. The online platform (Blackboard) served as the primary instructional interface, while supplementary tools like pronunciation applications, grammar checkers, and AI assistants provided further support for specific language skills (Section 5.4.1). However, technology sometimes hindered authentic engagement through over-reliance on AI tools and technical unreliability (Section 5.4.2). This aligns with Gawande and Al-Senaidi's (2015) critique that learning technologies may not prepare learners for unexpected real-life situations, potentially undermining independent problem-solving abilities.

The relationship between tool design and pedagogical goals revealed both alignments and mismatches within the Blended Learning model. Some tools, such as the interactive simulations described by some trainers, effectively supported specific learning goals. This technology directly supported the pedagogical goal of preparing trainees for practical workplace tasks by creating immersive, contextualised learning experiences (Section 5.4.1). However, other tools, like ChatGPT and grammar checkers, seemed disconnected from vocational learning objectives by fostering dependency on automated assistance rather than developing the independent writing skills needed in workplace contexts where such tools may not be available. This mismatch between technological design and pedagogical purpose hindered rather than supported learning (Section 5.4.2). These observations connect to Bayne's (2015) concern about technology-enhanced learning potentially de-emphasising the role of teachers and structured guidance, highlighting the need to preserve the social dimensions of language learning.

6.5.2 Changing Learning Behaviours

Technology influenced learning behaviours in contradictory ways. Beyond the dependencies discussed in Section 6.2.2, it fostered what Tan et al. (2022)

described as autonomous learning abilities through its inherent flexibility (Sections 5.1.2 and 5.4.1). However, technology also fostered potentially problematic dependencies, particularly over-reliance on digital tools for core language tasks (Section 5.4.2). This dependency exemplifies Biesta's (2009) concern about 'learnification,' reducing education to individual learning activities potentially at the expense of broader educational goals like qualification and socialisation. Moreover, technology integration sometimes undermined meaningful engagement when students bypassed authentic learning through superficial completion of digital tasks (Section 5.5.2 and 5.4.2), reflecting Orr's (2019) concern about overemphasis on self-directed approaches at the expense of contextualised teacher knowledge.

6.5.3 Technical Challenges and Solutions

Participants reported various technical difficulties that affected the learning experience within the Blended Learning model (Section 5.4.2). Recurring issues included platform instability and data loss problems. These technical failures created frustration and disrupted learning. Unreliable internet connectivity further complicated remote learning for some students. Additionally, software limitations sometimes impeded progress in some activities like pronunciation exercises. These findings converge with Hajan and Padagas's (2021) characterisation of challenges in using Canvas as an online platform in Blended Learning, which included technical problems, system interface, and lack of proper training for both students and teachers. The current findings expand upon these insights by highlighting how technical issues influenced vocational language development, where consistent practice with workplace communication patterns is essential for skill acquisition. The current findings also proposed some practical solutions (Section 5.4.3), including more robust platform design, offline capabilities, and alternative feedback mechanisms. Some participants also proposed more comprehensive technology integration that allows the tracking of actual student performance.

6.5.4 The Human-Technology Balance

Participants valued technology as a supplement to human instruction rather than a replacement (Sections 5.1.2, 5.4.2, and 5.4.3), aligning with Wingate's (2009) emphasis on contextualised learning that resembles workplace settings. Human instructors provided personalisation and contextualisation (as discussed in Section 6.4.1), while technology offered consistency, repetition and accessibility (Section 5.4.1). This balance corresponds to Mohammadi Zenouzagh et al.'s (2023) findings that student e-satisfaction depends on both teacher dimensions (presence and competences) and technological dimensions (system quality and accessibility). It also echoes Mali's (2024) research showing that students valued both technological activities and human interaction for different aspects of language development. When comparing these findings with evaluations of technology-enhanced instruction, such as Muqaibal et al.'s (2023) study on vocabulary learning distribution, important distinctions stand out. While Muqaibal et al. focused on specific vocabulary acquisition outcomes, this research examined technology's broader impact on social and pedagogical dimensions of language learning. This holistic perspective reveals how technology shapes not only specific language skills but also learning relationships, engagement patterns, and educational identities.

The findings broaden understanding beyond existing research on technology in vocational contexts by highlighting the distinctive requirements of industrial workplace communication. Unlike studies such as Lebedieva et al. (2023), which examined corpus linguistics methods in higher educational institutions, this research investigated technology integration within a specific vocational context where language serves immediate workplace purposes. This contextualisation revealed the dual demands of technology integration in vocational contexts: supporting general language skill development while providing authentic practice in workplace-specific communication such as safety protocols, technical reporting, and hierarchical correspondence.

6.6 Towards an Enhanced Blended Learning Model

The findings of this study highlight both the strengths and limitations of the target Blended Learning model in supporting vocational English development

(Section 5.5). This section discusses recommendations for enhancing the model, which are grounded in both the empirical findings of this study and its theoretical framework.

6.6.1 Addressing Implementation Challenges

The findings revealed several challenges that could be addressed through strategic enhancements to the current model (Section 5.5.3). This requires clearer expectations, strategic allocation of language skills (Mirabolghasemi et al., 2021), and varied assessment methods accommodating diverse learning needs (Yasin et al., 2022). To address the engagement challenges outlined in Section 6.2.2, implementation should incorporate more interactive elements and strengthen connections between self-directed tasks and workplace relevance, which could address the low engagement with self-study components reported by Wahyuningsih and Afandi (2023). The technical reliability issues highlighted in Section 6.5.3 require infrastructure improvements and comprehensive technical support to enhance implementation effectiveness.

These implementation recommendations extend beyond what was found in evaluations of Blended Learning implementation from Section 2.1.1. While studies like Derlina et al. (2020) and Rahman (2021) focused basically on the effectiveness and reception of Blended Learning models, the current research offers more specific guidance on addressing implementation challenges in vocational contexts, including practical recommendations for reducing screen time, developing job-track-specific content, incorporating visual aids for technical procedures, and balancing digital learning with workplace-relevant face-to-face interactions (Section 5.5.3). Also, unlike Ramalingam et al.'s (2021) focus on 21st-century skills development through Blended Learning, the current findings highlight how implementation challenges specifically influence vocational language acquisition, where communication skills directly influence workplace performance and safety. This contextualised understanding contributes to addressing underexplored areas in earlier research by emphasising the importance of implementation strategies that support the

specific needs of vocational language learners in industrial training environments.

6.6.2 Enhancing Authenticity in Vocational Training

To address authenticity limitations described in Section 6.1.2, several practical interventions are recommended. Developing industry-specific scenarios would bridge the gap between academic content and workplace realities through materials aligned with specific job tracks, authentic workplace documents, and specialised technical glossaries, supporting Wang and Sun's (2014) recommendation for ESP course revision that emphasises materials connecting academic learning with workplace demands. Also, simulation and role-play activities proved particularly effective for developing workplace communication skills (Sections 5.2.1, 5.2.3, and 5.4.1). Creating more comprehensive simulations across different job roles could significantly enhance authenticity, allowing learners to practise communication within contextualised environments. This aligns with Herrington and Oliver's (2000) finding that Situated Learning principles provide effective guidelines for acquiring advanced knowledge through authentic contexts and activities.

Integrating workplace practices would further enhance authenticity by embedding vocational English within the professional culture of the oil and gas industry. This might involve incorporating industry-standard documentation formats, adopting workplace safety communication protocols, and structuring collaborative projects around actual workplace processes. Moreover, collaboration with industry professionals would provide direct connections between academic training and workplace realities through, for example, guest speakers, workplace observation opportunities, and collaborative curriculum development engaging both language instructors and technical specialists. This would enhance both relevance and authenticity of learning experiences.

These recommendations connect to studies on authentic contexts in vocational training from Section 2.2, particularly Karapetian's (2020) finding that flipped classroom models provide better learning experiences through true-to-life

business environments. However, the current findings emphasise the importance of industry-specific authenticity rather than general business contexts (Sections 5.2.4 and 5.5.3), highlighting the unique communication demands of the oil and gas sector. This specificity corroborates Huynh et al.'s (2024) recommendation for addressing individual learning needs in vocational English programmes.

When comparing these recommendations with research on evaluating educational models (Section 2.3), key advancements are noticed. For example, while Mai et al. (2022) found online courses effective in developing TPACK for emergency remote teaching (ERT), the current research emphasises evaluating how authentically educational models prepare learners for specific workplace communication demands. This shift from general effectiveness to contextual authenticity highlights a significant contribution: vocational English evaluation should focus not just on language skills but on how effectively language training prepares learners for the specific communication demands of target professions.

6.6.3 Optimising Technology Use

Building on the analysis of technology's role in Section 6.5, several recommendations can be made for optimising technology use in the Blended Learning model. First, more purposeful selection of digital tools should prioritise technologies that effectively simulate workplace communication demands, particularly those enabling authentic interaction. Enhancing this aspect would involve balancing synchronous communication tools alongside existing asynchronous resources, creating more realistic workplace communication scenarios. This builds on Wang's (2021) finding on how technology application can enhance interaction in blended environments. Second, addressing digital literacy gaps remains essential for effective implementation. A comprehensive approach to digital competence development would prepare learners to engage critically with technology-enhanced environments, reducing the over-dependency issues discussed in Section 6.2.2.

These recommendations contribute to understanding how technology specifically supports vocational language development, emphasising digital tools that augment authentic workplace communication rather than general language practice. This contextualised approach addresses challenges found in earlier research by Butarbutar et al. (2023) while ensuring that digital enhancements serve the specific needs of vocational language learners in industrial settings.

6.6.4 Sustainable Evaluation and Iteration

Enhancing the Blended Learning model requires ongoing assessment and adaptation. Sustainable evaluation approaches should include qualitative evaluation strategies, stakeholder involvement, responsive curricula, and continuous improvement processes. Building on this study's qualitative approach, evaluation should extend beyond statistical measures to capture learning experiences through focus groups, open-ended questionnaire questions, and reflective journaling. This aligns with Saunders' (2011) definition of evaluation as a "social practice bounded by the purpose, intention, or function of attributing value or worth to... a sectoral activity" (p. 3), emphasising the importance of participants' explicit and tacit knowledge.

Curriculum enhancements should reflect perspectives from all affected parties. Findings revealed valuable insights from students, teachers, former students, and trainers. Formalising this input through regular consultation, representative working groups, and collaborative design would enhance curriculum relevance. This addresses the gaps found by Nguyen et al. (2024) in their investigation of email pragmatic instruction, which revealed inadequate attention to sociocultural aspects of workplace communication. Also, dynamic adaptation requires modular curriculum components that can be updated as industry practices evolve, flexible pathways for different specialisations, and regular review cycles incorporating feedback from workplace supervisors and graduates. The evolution of the target organisation from primarily online instruction during COVID-19 to the current 60:40 in-class/online ratio proves commitment to improvement. Formalising this through structured evaluation

cycles, dedicated improvement teams, and transparent implementation of evidence-based enhancements would strengthen responsiveness. This connects to Darling-Hammond et al.'s (2020) emphasis on aligning pedagogical approaches with evolving societal needs.

These recommendations for sustainable evaluation align with evaluation frameworks discussed in Section 2.3, particularly Bassey's (1999) description of educational case study as "an empirical enquiry conducted within a localised boundary of space and time... into interesting aspects of an educational activity, or programme, or institution, or system" (p. 58). The current research extends this understanding by emphasising how ongoing evaluation can support continuous enhancement of Blended Learning models in vocational contexts, where communication demands may change rapidly with emerging industry practices and technologies. This dynamic approach contrasts with more static assessment models that focus primarily on summative outcomes rather than developmental processes. While Ponomarenko et al. (2023) focused on the impact of alternative assessment (such as case studies, e-portfolios, and mock interviews rather than traditional exams) on Business English skills formation, and Alzubi et al. (2022) compared teachers' perceptions of online versus offline assessment methods, the current research emphasises how evaluation can directly inform ongoing programme enhancement rather than merely measuring effectiveness. This shift from measurement to improvement represents a significant contribution of the current study, highlighting the value of evaluation not just as an accountability mechanism but as a driver of continuous enhancement in vocational language training.

Conclusion

This chapter discussed the key findings from the evaluation of the Blended Learning model in vocational English training. The discussion examined how the model's components work together, revealed both affordances and constraints in vocational skill development, and highlighted the crucial role of social dynamics and technology integration in shaping learning outcomes. The analysis revealed that effective Blended Learning in vocational contexts

requires careful attention to three critical areas: the synergistic relationship between face-to-face and self-directed components, the authentic integration of workplace communication demands, and the balanced implementation of technology that supports rather than replaces meaningful pedagogical practices. The identified implementation challenges suggest specific enhancement opportunities that could strengthen the model's effectiveness. These discussions provide the foundation for the final chapter, which will present the study's overall contributions, practical recommendations for stakeholders, and directions for future research in vocational Blended Learning contexts.

Chapter 7: Conclusions and Recommendations

This concluding chapter synthesises the key findings from this study of a Blended Learning model implemented in vocational English training within a Saudi Arabian industrial context. The research examined how this model supported the development of English language skills relevant to learners' vocational needs in the oil and gas industry. Drawing together insights from the theoretical framework, empirical findings, and discussion, this chapter presents the study's main conclusions, articulates its contributions to knowledge, acknowledges limitations, and offers practical recommendations for stakeholders. The chapter concludes by proposing directions for future research that could further advance understanding of technology-enhanced learning in vocational education contexts.

7.1 Key Research Findings

This study addressed the main research question: *How does the Blended Learning model implemented in a vocational training organisation in Saudi Arabia support the development of English language skills that are relevant to the learners' vocational needs?* The investigation revealed nuanced insights into the effectiveness of blending face-to-face instruction with self-directed online learning for vocational English development.

7.1.1 Synergistic Nature of Blended Learning Modalities

The research revealed that face-to-face and self-directed components created a synergistic relationship when thoughtfully integrated, with each modality contributing distinctive strengths to vocational English development. Face-to-face instruction proved particularly effective for developing oral communication skills, providing immediate feedback, and creating authentic social interactions that prepared learners for workplace communication demands. The physical classroom environment fostered confidence-building through structured speaking activities, collaborative discussions, and peer interactions that simulated professional team dynamics.

Self-directed learning enabled personalised pacing and flexible engagement with learning materials, although it presented motivational challenges for some learners. This modality proved especially valuable for written communication skill development and initial technical vocabulary exposure, allowing learners to practice and refine their abilities outside the constraints of scheduled class time. The integration of digital tools within the self-directed component provided opportunities for repeated practice, immediate feedback through automated systems, and access to diverse learning resources.

7.1.2 Vocational English Skills Development Outcomes

The study found varying degrees of effectiveness across different language skill domains, with implications for curricular design and instructional priorities. Functional English for workplace readiness was successfully developed through the model's emphasis on industry-relevant communication patterns, hierarchical reporting structures, and safety-related discourse. Learners exhibited competence in professional correspondence, particularly email writing, and showed improvement in formal presentation skills essential for workplace communication.

Written communication skills benefited from the blended approach through a combination of self-directed practice and classroom feedback. The structured progression from independent drafting to collaborative refinement proved effective for developing professional writing competencies. However, challenges persisted in technical writing accuracy, particularly spelling and specialised terminology, suggesting the need for more targeted support in these areas.

Oral communication development was most successful within the face-to-face component, where authentic interaction opportunities enabled learners to progress from hesitant to confident communicators. The structured speaking activities, presentation practice, and peer interaction created a supportive environment for developing workplace communication confidence. Trainers confirmed that graduates displayed strong oral communication skills in their

subsequent technical training, reflecting successful transfer of these competencies.

Technical vocabulary acquisition revealed the most significant challenges within the model. While general workplace vocabulary was effectively developed, gaps existed between academic content and job-specific terminology. Trainees reported coming across unfamiliar technical jargon in their job skills courses despite completing the English training programme.

7.1.3 Social Dynamics and Learning Environment

The research confirmed the centrality of social interaction in vocational language development, which is consistent with social constructivist principles. Teachers played crucial roles as facilitators, guides, and scaffolders, adapting their approaches to support knowledge construction across different modalities. Their ability to contextualise learning within authentic workplace scenarios and provide immediate feedback proved essential for effective skill development.

Peer interaction was a powerful mechanism for collaborative learning, both within formal classroom structures and through informal networks extending beyond scheduled instruction. The supportive learning community created through these interactions enhanced engagement, provided opportunities for mutual feedback, and developed collaborative skills essential for workplace success. Digital communication tools extended these peer networks though sometimes they impacted the quality of interaction compared to face-to-face engagement.

Authenticity of the learning environment significantly influenced engagement and skill transfer. Activities that closely simulated workplace communication demands generated higher levels of learner engagement and more effective skill development. Conversely, tasks perceived as disconnected from professional requirements resulted in reduced motivation and superficial involvement.

7.1.4 Technology Integration: Opportunities and Constraints

Technology integration within the Blended Learning model revealed both affordances and limitations for vocational English development. Digital tools successfully supported certain aspects of learning, particularly providing flexible access to materials, enabling repeated practice, and easing progress tracking. Interactive simulations and multimedia resources enhanced engagement and created immersive learning experiences that bridged classroom and workplace contexts. However, the research identified significant constraints in technology implementation. Technical reliability issues, including platform instability and connectivity problems, sometimes disrupted learning continuity and created frustration among participants. Over-reliance on automated tools, particularly AI-powered assistance, sometimes undermined authentic skill development by enabling shortcuts that bypassed meaningful learning processes.

7.1.5 Implementation Challenges and Enhancement Opportunities

The study revealed several implementation challenges that affected the model's effectiveness. Preserving motivation in self-directed activities proved difficult for many learners, particularly those accustomed to more structured educational environments. Time management across modalities was another challenge, as some learners struggled to balance in-class and online responsibilities effectively. Additionally, quality assurance across components was an ongoing issue; teachers expressed concerns about ensuring authentic engagement rather than superficial task completion. Finally, the tension between personalised learning pathways and standardised assessment requirements created further complexity for the learners. Despite these challenges, participants provided valuable recommendations for enhancement. These included increasing interactivity in online activities, strengthening connections between academic content and job-specific requirements, improving technological reliability, and creating more opportunities for authentic workplace communication practice.

7.2 Theoretical Contributions

This study makes several significant contributions to educational theory, particularly in understanding how Social Constructivism and Situated Learning principles manifest within technology-enhanced vocational contexts.

7.2.1 Advancing Social Constructivist Understanding of Blended Learning

The research contributes to social constructivist theory by illuminating how knowledge construction occurs across different modalities within vocational learning contexts. Unlike previous studies that examined social learning primarily within single modalities, this investigation revealed how face-to-face and self-directed components support different aspects of the knowledge construction process simultaneously. Face-to-face interaction enabled immediate negotiation of meaning through collaborative dialogue, whereas self-directed study provided opportunities for reflective processing and individual consolidation of learning. This finding supports Vygotsky's (1978) conception of learning progression from social to individual levels by illustrating how both processes can operate concurrently within carefully designed blended environments. The research showed that effective knowledge construction in vocational contexts requires intentional integration of social and individual learning opportunities, with each modality contributing distinctively to holistic skill development. However, the study revealed tensions in preserving social engagement across modalities, highlighting that effective Blended Learning requires coherent pathways that support social constructivist principles throughout.

7.2.2 Extending Situated Learning Theory in Technological Contexts

This research advances Situated Learning theory by examining how digital technologies influence Legitimate Peripheral Participation and communities of practice formation in vocational training contexts. Traditional Situated Learning theory emphasises physical participation in workplace communities, but this study revealed how technological mediation creates alternative pathways for

engaging with professional practices while bridging academic and workplace contexts.

The findings revealed that simulation technologies, collaborative digital platforms, and online resources enabled new forms of peripheral participation that prepared learners for eventual full participation in workplace communities. However, these technology-mediated experiences sometimes lacked the contextual richness and authentic complexity of actual workplace environments, creating what might be called ‘simulated authenticity’ rather than genuine workplace participation. This theoretical elaboration highlights both opportunities and limitations in technology-enhanced Situated Learning. Although digital tools can provide valuable preparatory experiences and bridge educational-workplace transitions, they cannot fully substitute for authentic community participation. This research suggests that effective vocational training requires strategic combination of technology-mediated preparation with authentic workplace engagement, creating gradual pathways from simulated to genuine professional participation.

7.2.3 Reconceptualising Technology’s Mediating Role

The research contributes theoretical insights into how technology mediates relationships between classroom learning and workplace application in vocational contexts. Rather than viewing technology only as a delivery mechanism or engagement tool, the findings suggest reconceptualising digital tools as bridging media that influence the quality and authenticity of vocational learning experiences. This theoretical perspective came from seeing how different technologies either enhanced or hindered the transfer of communicative competencies from educational to professional contexts. Tools that closely simulated workplace communication demands enabled skill transfer, but those that encouraged dependency on automated help impeded authentic skill development. The mediating role of technology proved particularly significant in vocational contexts where communication skills serve immediate professional purposes rather than general academic development. This distinction suggests that technology integration in vocational training

requires different theoretical frameworks than those developed for general education, emphasising authentic workplace simulation and gradual withdrawal of technological scaffolding to promote independent professional competence.

7.2.4 Contributions to Specific Scholarly Conversations

Beyond the overarching theoretical contributions discussed above, this research makes specific contributions to three distinct scholarly audiences identified in the literature review: researchers in Blended Learning, scholars in vocational English education, and those working on educational model evaluation. While these contributions are interconnected, differentiating them helps to clarify how this study advances understanding within each field's particular concerns and debates.

7.2.4.1 Contributions to Blended Learning Research

For the Blended Learning scholarly community, this research challenges the field's persistent focus on modality comparison – the question of whether blended approaches are 'better than' traditional or fully online instruction – by demonstrating that effectiveness depends not on modality choice itself but on how thoughtfully components are integrated to serve specific educational purposes. The finding that face-to-face and self-directed components developed different language skills optimally, and that their synergistic relationship created learning opportunities neither modality could provide independently, advances theoretical understanding beyond simplistic comparative frameworks. This repositions Blended Learning research away from proving superiority and towards understanding the mechanisms through which integration creates value.

Additionally, this study contributes methodologically by demonstrating the value of qualitative, multi-stakeholder case study approaches for Blended Learning evaluation. While much existing research employs experimental or quasi-experimental designs comparing learning outcomes across modalities, this study shows how in-depth qualitative investigation can reveal implementation challenges, pedagogical processes, and contextual factors that quantitative

comparisons obscure. The finding that stakeholders across all groups (students, teachers, trainees, trainers) identified both affordances and constraints in the Blended Learning model – and that their perspectives complemented rather than contradicted each other – illustrates why single-source evaluations may provide incomplete understanding of how blended approaches function in practice.

7.2.4.2 Contributions to Vocational English Research

For vocational English scholars, this research addresses a critical underexplored area: the intersection of ESP with technology-enhanced learning in authentic workplace preparation contexts. The field has extensively theorised about needs analysis, genre-based approaches, and authenticity in vocational language teaching, but has devoted less attention to how these principles translate into technology-mediated learning environments. This study's finding that authenticity of learning contexts significantly influenced both engagement and skill transfer provides empirical support for situated approaches to ESP while highlighting the specific challenges of creating authentic contexts within blended formats.

Moreover, by examining progression from academic English training through to technical training (via the perspectives of both trainees and their job skills trainers), this research provides rare longitudinal-adjacent evidence of skill transfer in vocational English contexts. Most ESP research examines learners while they are still in language programmes; this study's inclusion of graduates and their technical instructors reveals which aspects of language training actually transfer to subsequent vocational study and which prove insufficient – insights that can only emerge through this kind of extended follow-up.

7.2.4.3 Contributions to Educational Evaluation Research

For scholars of educational model evaluation, this research demonstrates the value of theory-grounded qualitative evaluation that positions stakeholder experience as primary evidence of effectiveness. While evaluation research has increasingly advocated for stakeholder-inclusive approaches, implementation

often remains focused on satisfaction surveys and standardised outcome measures. This study shows how theoretical frameworks (here, Social Constructivism and Situated Learning) can structure qualitative evaluation that captures not just whether stakeholders are satisfied but why certain aspects work well and others do not, and what mechanisms underpin effectiveness or ineffectiveness.

The research also contributes methodologically by developing and demonstrating the utility of a thematic evaluation framework that emerged from but extends beyond the specific case studied. Traditional evaluation models (like Kirkpatrick's) provide generic structures applicable across contexts but may miss dimensions specific to particular educational approaches; context-specific evaluations provide detailed understanding but often resist transfer to other settings. The five-dimensional framework developed here (modality integration, skills development, learning environment, technology effectiveness, implementation challenges) offers a middle ground: specific enough to capture what matters in Blended Learning for vocational purposes, yet transferrable enough to be adapted for similar contexts.

7.3 Contributions to Knowledge and Practice

This study makes substantial contributions to knowledge and practice across multiple domains, addressing underexplored areas in existing literature and offering practical guidance for educational stakeholders. The contributions encompass theoretical advancement, methodological innovation, and practical application in vocational education contexts.

7.3.1 Addressing Underexplored Areas

The research addressed a significant underexplored area uncovered in the literature review by examining the intersection of Blended Learning, vocational English, and educational model evaluation. The systematic review revealed no existing studies at this intersection, which highlighted the need for research that combined these three areas within authentic vocational contexts. This study addressed that underexplored area by providing comprehensive evaluation of a

Blended Learning model specifically designed for vocational English development in an industrial training setting. The research also contributed to the understanding of evaluation approaches in vocational education by illustrating the value of qualitative, stakeholder-centred evaluation methods. While existing literature often employed quantitative measures (such as test scores, satisfaction surveys, and pre/post assessments) or mixed-methods approaches combining these with qualitative methods (such as interviews and focus groups), this study showed how a purely qualitative, multi-stakeholder case study approach captures nuanced aspects of learning experiences that other methodological approaches might overlook. The multi-stakeholder perspective, including current students, graduates, teachers, and technical trainers, provided comprehensive understanding of the model's effectiveness across the entire vocational training pathway. Furthermore, the study contributed to limited research on Blended Learning in non-Western contexts by providing detailed examination of implementation within Saudi Arabian vocational education.

7.3.2 Methodological Contributions

The research made several methodological contributions to case study research in educational contexts. The multi-stakeholder approach, incorporating perspectives from learners at different stages of their vocational journey alongside their instructors, generated quasi-longitudinal insights into learning progression and skill transfer. This methodological innovation addressed limitations of single-perspective studies while preserving the depth characteristic of qualitative case study research. The study also exemplified effective application of reflexive thematic analysis within educational case study contexts, showing how theory-informed analysis can structure data interpretation while staying open to unanticipated themes. The hybrid deductive-inductive approach enabled systematic examination of theoretical concepts while allowing participant voices to shape understanding of how those concepts manifested in authentic educational contexts. Finally, the integration of Social Constructivism and Situated Learning as complementary theoretical lenses provided a robust framework for understanding complex educational

phenomena. This theoretical integration showcased how grand and mid-range theories can work together to illuminate different aspects of the same educational experience, contributing to more comprehensive understanding than single-theory approaches might achieve.

7.3.3 Practical Contributions

The research provides practical contributions for various stakeholder groups involved in vocational English training and Blended Learning implementation. Policy makers should support vocational education through funding incentives, regulatory flexibility, and quality assurance frameworks that incorporate industry input alongside traditional academic measures. Furthermore, institutional leaders can benefit from insights into infrastructure requirements, professional development needs, and evaluation approaches that support sustainable Blended Learning implementation. The study emphasises the importance of ongoing stakeholder consultation, iterative model refinement, and balanced investment in both technological and pedagogical enhancement. The study also offers practical guidance for industry partners on collaborative curriculum development and ongoing feedback mechanisms. For curriculum designers, the study offers evidence-based guidance on strategic skill allocation across modalities, suggesting how different language competencies can be most effectively developed through face-to-face or self-directed approaches. The findings provide specific recommendations for enhancing authenticity through industry-specific scenarios, collaborative industry partnerships, and simulation technologies. For teachers and trainers, the research highlights the evolving roles needed in blended environments, emphasising facilitation, scaffolding, and authentic contextualisation. The findings provide practical strategies for boosting learner motivation across modalities, creating effective peer learning opportunities, and integrating technology purposefully rather than instrumentally. Finally, for learners themselves, the study emphasises the importance of developing structured time management skills and critical technology use, encouraging students to engage meaningfully with workplace-relevant content while actively seeking feedback and building collaborative

relationships with peers and instructors. These points are elaborated further in the next section.

7.4 Recommendations

Based on the findings and conclusions of this study, several recommendations are proposed for different stakeholder groups involved in vocational English training and Blended Learning implementation. These recommendations address both immediate practical improvements and longer-term strategic developments. Building on the theoretical and practical implications discussed earlier, the following recommendations offer specific guidance for different stakeholder groups.

7.4.1 For Policy Makers

Educational policies should recognise and support the distinctive requirements of vocational education, particularly the need for authentic workplace connections and flexible curriculum structures. Policy frameworks should encourage industry-education collaboration through funding incentives, regulatory flexibility, and recognition of alternative assessment approaches that reflect workplace competency requirements. Also, investment in vocational education infrastructure should prioritise both technological capabilities and professional development resources. This includes supporting research into effective vocational training approaches, funding for technology-enhanced learning initiatives, and professional development programmes that prepare educators for evolving technological and pedagogical demands. Moreover, quality assurance frameworks for vocational education should incorporate industry input and workplace outcomes alongside traditional academic measures. This might entail industry representation on accreditation bodies and employer satisfaction surveys that inform programme evaluation and improvement processes.

7.4.2 For Institutional Leaders

Institutional investment should prioritise both technological infrastructure and pedagogical development to support sustainable Blended Learning implementation. This includes ensuring reliable platform functionality, adequate technical support, and comprehensive professional development programmes that address both technological competence and pedagogical innovation. Infrastructure planning should anticipate ongoing maintenance requirements, particularly ensuring platform stability, and carefully design AI integration to preserve learning integrity. In addition to this, institutional policies should support flexible curricular structures that can adapt to changing industry requirements and preserve educational quality standards. Quality assurance systems should incorporate multiple evaluation methods that capture both learning outcomes and stakeholder satisfaction. Furthermore, strategic partnerships with industry organisations should be formalised through collaborative agreements that specify mutual responsibilities for curriculum development, resource sharing, and graduate feedback. These partnerships should include regular review mechanisms that ensure ongoing consistency between educational outcomes and industry requirements.

7.4.3 For Industry Partners

Industry organisations should engage actively in vocational education partnerships by availing authentic learning materials, workplace observation opportunities, and expert input into curriculum development. This involvement ensures that training programmes reflect current industry practices and communication requirements while providing educational institutions with access to authentic professional contexts. Also, structured feedback mechanisms should be established to provide educational institutions with regular information about graduate performance in workplace communication contexts. This might involve formal assessment of communication competencies during early employment periods, identification of skill gaps that require further training, and ongoing dialogue about evolving industry communication requirements. In addition, investment in collaborative training initiatives, such as workplace-based learning opportunities, guest expert

programmes, and shared simulation facilities, can enhance the authenticity of vocational training and strengthen industry-education relationships.

7.4.4 For Curriculum Designers and Administrators

Curriculum designers should implement strategic skill allocation approaches that leverage the inherent strengths of different Blended Learning modalities. Oral communication skills should be primarily developed through face-to-face instruction that affords authentic interaction opportunities, whereas written skills can benefit from combined self-directed practice and classroom feedback. Technical vocabulary development requires integrated approaches that combine initial exposure through self-directed study with contextualisation and application through face-to-face instruction. Beyond this, the development of industry-specific learning materials should be prioritised, to ensure that content reflects authentic workplace communication demands rather than generic business English. Modular curriculum structures should be implemented to accommodate different specialisation requirements while retaining core communicative competencies. Additionally, assessment strategies should balance standardised evaluation with authentic workplace communication assessment. This might involve portfolio approaches that document progress across different professional communication tasks, workplace simulation assessments, and collaboration with industry partners to validate assessment criteria.

7.4.5 For Educational Practitioners

Teachers and trainers implementing Blended Learning in vocational contexts should prioritise the development of facilitative pedagogical approaches that support knowledge construction across modalities. This requires moving beyond traditional transmission models to embrace roles as guides, coaches, and scaffolders who help learners navigate between individual and collaborative learning experiences. Professional development should focus on strategies for supporting authentic contexts across face-to-face and self-directed components, ensuring that learning activities reflect genuine workplace

communication demands. Also, practitioners should develop competence in purposeful technology integration, selecting and implementing digital tools that enhance rather than replace meaningful human interaction. Teachers should also develop strategies for sustaining learner motivation across modalities, creating clear connections between self-directed tasks and face-to-face applications while providing regular feedback and support.

7.4.6 For Learners

Students and trainees in Blended Learning vocational programmes should develop structured time management approaches to balance online and in-class responsibilities while building strong self-control for independent study. Rather than relying on technology tools as shortcuts, learners should use AI assistants and grammar checkers critically to understand corrections and develop authentic skills. Active engagement with learning content should focus on meaningful connections to workplace contexts rather than superficial task completion. Students should actively seek feedback from instructors, participate meaningfully in peer interactions, and establish support networks with classmates to navigate Blended Learning challenges while developing collaborative skills essential for professional success.

Table 4 summarises the above recommendations with references to the specific sections in the Findings and Discussion chapters that provide the empirical and theoretical support for each recommendation.

Stakeholder Group	Key Recommendations	Supporting Sections
Policy Makers	- Support vocational education with policies for workplace connections and flexible curricula.	5.5.3, 6.1.2, 6.6.2
	- Encourage industry-education collaboration via funding and regulatory flexibility.	6.1.2, 6.6.2

	- Invest in vocational infrastructure (tech and teacher training).	5.4.2, 5.5.2, 6.5, 6.6.1
	- Include industry input in quality assurance (employer surveys, accreditation bodies).	6.6.4
Institutional Leaders	- Invest in both tech infrastructure and teacher professional development.	5.4.2, 5.5.2, 6.5, 6.6.1
	- Ensure platform stability and thoughtful AI integration.	5.4.2, 6.5
	- Support flexible curricular structures for industry changes.	6.2.3, 6.6.4
	- Strengthen quality assurance with multiple evaluation methods.	5.5.2, 6.6.4
	- Formalise industry partnerships (collaborative agreements, regular reviews).	6.1.2, 6.6.2
Industry Partners	- Provide authentic learning materials, workplace observations, and expert input.	5.2.4, 6.1.2, 6.3.4, 6.6.2
	- Establish structured feedback on graduate performance.	6.6.2, 6.6.4
	- Invest in collaborative training (workplace-based learning, guest experts, and shared simulations).	5.2.1, 5.2.3, 6.6.2
Curriculum Designers & Administrators	- Strategically allocate skills to appropriate Blended Learning modalities (e.g., oral skills in face-to-face, written skills in self-directed).	5.1.3, 5.2, 6.2, 6.3
	- Develop industry-specific materials (not generic business English).	5.2.4, 5.5.3, 6.1.2, 6.3.4, 6.6.2
	- Implement modular curriculum structures for different specialisations.	5.5.2, 6.6.4

	- Balance standardised evaluation with authentic workplace communication assessment.	5.5.2, 6.6.4
Educational Practitioners (Teachers & Trainers)	- Prioritise facilitative pedagogical approaches that support knowledge construction.	5.3.1, 6.4.1
	- Focus on authentic workplace contexts in both face-to-face and self-directed learning.	6.1.2, 6.6.2
	- Develop competence in purposeful technology integration.	5.4.3, 6.5, 6.6.3
	- Sustain learner motivation across modalities.	5.1.2, 5.5.2, 6.2.2
Learners	- Develop structured time management approaches to balance online and in-class responsibilities.	5.5.2
	- Use technology tools (AI assistants, grammar checkers) critically – rather than as shortcuts – to develop authentic skills.	5.4.2, 6.5
	- Focus on meaningful engagement with workplace-relevant content, not superficial task completion.	6.1.2
	- Actively seek feedback and participate in peer interactions for collaborative skill development.	5.3.2, 6.4.2

Table 4: Summary of Recommendations

7.5 Study Limitations

This study, while offering valuable insights into Blended Learning in vocational English contexts, has several limitations that should be acknowledged when interpreting the findings and considering their broader applicability.

7.5.1 Methodological Limitations

Although the case study approach enabled deep examination of the Blended Learning model within its authentic context, it inherently limits the generalisability of findings. The focus on a single organisation within a specific cultural and industrial context means that conclusions may not transfer directly to other vocational training settings or cultural contexts. Also, the qualitative methodology, while appropriate for capturing rich experiential data, cannot provide statistical generalisations about Blended Learning effectiveness. Additionally, the cross-sectional data collection approach, despite including participants at different stages of their training journey, does not provide actual longitudinal tracking of the development of the same individual learners over time. Furthermore, sampling limitations may have influenced the findings, particularly the non-inclusion of workplace supervisors who could provide insights into graduate performance in authentic professional contexts. The voluntary participation approach may have also resulted in bias towards participants with more positive or negative experiences, potentially influencing the overall assessment of the model's effectiveness. Finally, the researcher's insider status, while providing valuable contextual knowledge, may have influenced data collection and/or interpretation processes.

7.5.2 Contextual Limitations

The study's setting within a single company's training programme creates unique conditions that may not reflect broader vocational education contexts. The organisation's focus on preparing trainees for specific roles within the company, rather than for general industry employment, creates unique educational objectives and assessment criteria that may not apply to other vocational training contexts. Relatedly, the timing of the study, conducted during the early implementation phase of the current Blended Learning model, means that findings reflect initial experiences rather than mature implementation. The organisation's recent transition from previous models means that both teachers and students were still adapting to new approaches, potentially influencing their perceptions and experiences in ways that might change over time.

7.5.3 Temporal and Scope Limitations

Although the cross-sectional data collection approach has the advantage of including perspectives from different stakeholder groups, it cannot capture how perceptions and experiences evolve over time. Longitudinal tracking of the same participants through their complete vocational journey would provide more comprehensive understanding of the model's long-term effectiveness and skill transfer outcomes. Additionally, the study's focus on English language skills, while directly linked to the research questions, does not examine how the Blended Learning approach affects other aspects of vocational training or how language learning interacts with technical skill development. A broader examination of the model's impact across multiple subject areas would provide more holistic understanding of its overall effectiveness. Further, the evaluation timeframe, being limited to the data collection period, cannot assess longer-term outcomes such as workplace performance, career progression, or skill retention over time. Understanding the ultimate effectiveness of vocational training requires tracking graduates through extended periods of professional practice to assess how well training outcomes transfer to authentic workplace performance.

7.6 Future Research Directions

The findings and limitations of this study suggest several promising directions for future research that could advance understanding of Blended Learning in vocational education contexts and address underexplored areas revealed by the current investigation.

7.6.1 Longitudinal Impact Studies

Future research should include longitudinal studies that track learners from initial training through workplace integration and career development. Such studies would provide crucial insights into how effectively Blended Learning approaches prepare learners for professional communication demands and how training outcomes evolve over time. Longitudinal research could examine

skill retention, workplace performance, and career progression to assess the long-term value of different training approaches.

7.6.2 Comparative and Cross-Cultural Studies

Comparative studies examining Blended Learning implementation across different cultural contexts, educational systems, and industry sectors would enhance understanding of how contextual factors influence effectiveness. Cross-cultural research could reveal which aspects of Blended Learning approaches are universally applicable and which require cultural adaptation. Furthermore, international collaborative research projects could compare vocational English training approaches across different countries and educational systems, delineating best practices that exceed cultural boundaries while recognising the importance of local contextualisation. Such research would contribute to developing more universally applicable guidelines for Blended Learning implementation in vocational contexts.

7.6.3 Technology Integration Research

Future research should examine emerging technologies that address the specific limitations identified in this study. Virtual reality applications could provide the immersive workplace simulations that participants requested to bridge the gap between academic content and authentic vocational contexts, overcoming the disconnection between generic technology tools and industry-specific communication demands. Advanced artificial intelligence applications could resolve the current over-reliance problems by providing more sophisticated, contextually aware feedback that supports genuine skill development rather than enabling shortcuts that bypass meaningful learning. Improved assessment technologies could address the tension between standardised evaluation and authentic workplace communication competencies by enabling continuous, context-embedded assessment that reflects real professional scenarios. Research into optimal technology integration strategies should examine how different digital tools can be purposefully selected and implemented to support specific learning goals, particularly addressing the

technical reliability issues and platform instability that disrupted learning continuity in this study. This research should prioritise both technological effectiveness and pedagogical appropriateness to ensure that technology adoption enhances authentic vocational learning rather than creating additional barriers to workplace preparation.

7.6.4 Mixed Methods Evaluation Studies

Future research should employ mixed methods approaches that combine the depth of qualitative investigation with the generalisability of quantitative measurement. Such studies could provide more holistic evaluation of Blended Learning effectiveness by capturing both experiential insights and measurable outcomes. At a broader scope, large-scale evaluation studies involving multiple institutions and contexts could provide statistical evidence for Blended Learning effectiveness and incorporate qualitative components that capture the nuanced aspects of implementation and experience. These studies could inform evidence-based policy making and institutional decision making about educational technology adoption.

7.6.5 Industry-Specific Investigations

Research examining Blended Learning implementation across different industry sectors could reveal how vocational communication requirements vary and how training approaches should be adapted accordingly. Sector-specific studies could pinpoint specific communication demands and effective training strategies for different professional contexts. In addition to this, collaborative research projects involving multiple industry partners could examine how vocational English training can be optimised for different professional contexts while preserving transferable core competencies. Such research could inform the development of flexible training frameworks that can be customised to diverse industry requirements.

7.7 Final Reflections

This study set out to evaluate the effectiveness of a Blended Learning model in teaching vocational English skills to apprentice trainees in a Saudi Arabian oil company's industrial training department. Through thorough examination of stakeholder experiences and perceptions, the research revealed both the potential and the challenges of integrating face-to-face instruction with self-directed learning in vocational contexts.

The findings showed that effective Blended Learning in vocational settings requires more than simply combining different delivery modalities. Success depends on thoughtful pedagogical design that harnesses the unique strengths of each component while supporting authentic connections to workplace communication demands. The research highlighted the importance of human interaction and social learning processes, even within technology-enhanced environments, recognising the valuable contributions that digital tools can make when purposefully integrated.

Perhaps most significantly, this study underscored the centrality of authenticity in vocational education. Learning experiences that closely reflected genuine workplace communication demands generated higher levels of engagement and more effective skill development than those perceived as disconnected from professional requirements. This finding has important implications for vocational curriculum design, suggesting that authentic contextualisation should be a primary consideration in educational planning rather than an optional enhancement.

Looking forward, the findings of this study suggest that the future of vocational education lies not in choosing between traditional and digital approaches but in developing sophisticated integration strategies that harness the benefits of both while addressing their respective limitations. This requires continued investment in professional development, technological infrastructure, and industry-education partnerships that ensure training stays relevant to evolving workplace demands.

In conclusion, this evaluative case study has demonstrated that Blended Learning in vocational contexts succeeds not through technological sophistication alone, but through deliberate pedagogical integration that honours both the social nature of learning and the authentic demands of professional practice. By examining the Blended Learning model through the voices of students, teachers, trainees, and trainers in Saudi Arabia's oil and gas training sector, the research has provided empirical evidence and theoretical insights that extend beyond this single context. The five-theme evaluation framework, practical recommendations for six stakeholder groups, and theoretical contributions to social constructivist and Situated Learning perspectives offer a foundation for enhancing vocational English training in technology-mediated environments. Ultimately, this study affirms that successful vocational education in an evolving technological landscape depends on maintaining the delicate balance between innovation and authenticity – harnessing digital tools to enhance, rather than replace, the human interactions and workplace-aligned practices that prepare learners for professional success.

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Appendices

Appendix 1: Coverage of the Three Notions in the Reviewed Literature

SN	Studies	Notions		
		Vocational English	Blended Learning	Evaluation
1	Ahmed et al. (2024)	Yes	Yes*	No
2	Al Shdaifat et al. (2022)	No	No	Yes*
3	Alzubi et al. (2022)	No	No	Yes*
4	Arrosagaray et al. (2022)	No	Yes*	Yes
5	Aubrey & Chung (2023)	No	Yes	Yes*
6	Baklazhenko & Kornieva (2023)	No	Yes*	Yes
7	Butarbutar et al. (2023)	No	No	Yes*
8	Cao et al. (2024)	No	Yes*	Yes
9	Chen & Lee (2024)	Yes*	Yes	No
10	Chien (2022)	No	Yes*	No
11	David & Kanno (2021)	Yes*	No	Yes
12	Deng & Sitthitikul (2025)	No	Yes*	Yes
13	Derlina et al. (2020)	No	Yes*	No
14	Dos Santos & Kwee (2022)	No	Yes*	Yes
15	Gadusova et al. (2021)	Yes*	No	Yes
16	Gaffas (2023)	No	Yes*	Yes
17	Ghouali & Ruiz-Cecilia (2021)	No	No	Yes*
18	Ginzburg & Daniela (2024)	No	Yes*	Yes
19	Gromoglasova et al. (2022)	No	No	Yes*
20	Hajan & Padagas (2021)	No	Yes*	No
21	Handayani et al. (2024)	No	Yes*	Yes
22	Holovatska (2023)	No	Yes*	Yes
23	Huynh et al. (2024)	Yes*	No	Yes
24	Imelda et al. (2019)	Yes*	Yes	No
25	Jankauskaitė-Jokūbaitienė (2023)	No	No	Yes*
26	Jiang et al. (2024)	Yes*	Yes	No
27	Jitpaisarnwattana (2025)	No	Yes*	Yes
28	Karapetian (2020)	Yes*	No	Yes
29	Karataş et al. (2024)	Yes*	No	Yes
30	Kieu et al. (2024)	No	Yes*	No
31	Kuzmina et al. (2021)	No	Yes*	No
32	Le et al. (2022)	No	Yes*	No
33	Lebedieva et al. (2023)	No	No	Yes*
34	Lipkova (2020)	Yes*	No	Yes
35	Luo et al. (2024)	Yes*	No	Yes
36	Mai et al. (2022)	No	No	Yes*
37	Mali (2024)	No	No	Yes*

38	Marwan & Wahyudi (2025)	Yes*	No	No
39	Mauludin et al. (2025)	Yes*	No	Yes
40	Meyers et al. (2024)	Yes	Yes*	No
41	Mirabolghasemi et al. (2021)	No	Yes*	No
42	Mohamed (2022)	No	Yes*	Yes
43	Mohammadi Zenouzagh et al. (2023)	No	No	Yes*
44	Muqaibal et al. (2023)	No	No	Yes*
45	Nguyen et al. (2024)	No	No	Yes*
46	Nguyen et al. (2025)	No	No	Yes*
47	Nusong & Watanapokakul (2025)	No	Yes	Yes*
48	Ölmez and Can Aran (2025)	No	No	Yes*
49	Ponomarenko et al. (2024)	No	No	Yes*
50	Ramalingam et al. (2021)	No	Yes*	No
51	Reid and Ivenz (2025)	Yes	No	Yes*
52	Sánchez-Sánchez & Encabo-Fernández (2023)	No	Yes*	Yes
53	Sislioglu & Demirel (2015)	Yes*	No	Yes
54	Tan et al. (2022)	No	Yes*	No
55	Tosun and Gönen (2025)	No	Yes*	Yes
56	Tretyakova et al. (2023)	No	Yes*	Yes
57	Rahman (2021)	No	Yes*	Yes
58	Usama et al. (2024)	Yes	Yes*	No
59	Wahyuningsih & Afandi (2023)	No	Yes*	Yes
60	Wang & Sun (2014)	Yes*	No	Yes
61	Wang (2021)	No	Yes	Yes*
62	Yasin et al. (2022)	No	No	Yes*
63	Zou et al. (2021)	No	No	Yes*

* ***Core notion***

Appendix 2: Ethical Approval Email

Outlook

[External] REAMS (Applicant Info) Ethics approval from Research Ethics Committee EdRes-2024-4443-EdAp-1

From donotreply@infonetica.net <donotreply@infonetica.net>
Date Mon 5/20/2024 5:27 PM
To Mohammad (Postgraduate Researcher) <m.mohammad1@lancaster.ac.uk>
Cc Moffitt, Philip <p.moffitt1@lancaster.ac.uk>

This email originated outside the University. Check before clicking links or attachments.

Dear Mohammad Mohammad,

Please note that this is an automated e-mail (Please do not reply to this e-mail).

Name: Mohammad Mohammad

Supervisor: Philip Moffitt

Department: Department of Educational Research

Ed Res **REC Reference:** EdRes-2024-4443-EdAp-1

Title: An Evaluative Study of a Blended Learning Model Implemented in a Vocational Training Organization in Saudi Arabia

Thank you for submitting your ethics application in REAMS. The application was recommended for approval by the Ed Res Research Ethics Committee, and on behalf of the Committee, I can confirm that approval has been granted for this application.

As Principal Investigator/Co-Investigator your responsibilities include:

- ensuring that (where applicable) all the necessary legal and regulatory requirements in order to conduct the research are met, and the necessary licences and approvals have been obtained.

- reporting any ethics-related issues that occur during the course of the research or arising from the research to the Research Ethics Officer at the email address below (e.g. unforeseen ethical issues, complaints about the conduct of the research, adverse reactions such as extreme distress).

- submitting any changes to your application, including in your participant facing materials (see attached amendment guidance).

Please keep a copy of this email for your records. Please contact me if you have any queries or require further information.

If you are experiencing any problems please contact your Research Ethics Officer.

Yours sincerely,

Dr Jonathan Vincent and Dr Phil Moffitt
Co-Chairs of Education Research Ethics committee
fass.lumsethics@lancaster.ac.uk

Appendix 3: Sample Participant Information Sheet

Lancaster University

Participant Information Sheet

An Evaluative Study of a Blended Learning Model Implemented in a Vocational Training Organisation in Saudi Arabia

Privacy Notice

For further information about how Lancaster University processes personal data for research purposes and your data rights please visit our webpage: www.lancaster.ac.uk/research/data-protection

My name is Mohammad Alsayed, and I am a PhD student in the Department of Educational Research at Lancaster University. I would like to invite you to take part in a research project on evaluating the Blended Learning model currently implemented in our industrial training centre (ITC).

Please take time to read the following information carefully before you decide whether or not you wish to take part.

What is the study about?

This study aims to investigate the use of Blended Learning for equipping the trainees with the vocational English skills they need for their future jobs. More specifically, it examines to what extent Blended Learning creates an authentic context for learning English applicable to the students' future work needs, how the face-to-face and self-directed components of Blended Learning complement each other in facilitating English learning, and the roles of the teachers and students in this context.

Why have I been invited?

I have approached you because **you are studying English using blended instruction. I would like to understand how the face-to-face and self-directed components of the Blended Learning model complement each other in facilitating English learning, and how you perceive your role in this context**.

I would be very grateful if you would agree to take part in this study.

What will I be asked to do if I take part?

If you decide to take part in the study, **I will ask you to attend a focus group discussion about the two components of Blended Learning: face-to-face instruction and self-directed learning, how they complement each other in facilitating learning, and what your role in this process is**. This should take 30-60 minutes. **Participants in the focus group will be asked not to disclose information outside of the focus group and with anyone not involved in the focus group without the relevant person's express permission**.

What are the possible benefits from taking part?

Taking part in this study **will allow you to share your experiences of using Blended Learning, and your insights will contribute to our understanding of the role of the student in facilitating English learning during blended instruction in our ITC**.

Do I have to take part?

No. It's completely up to you to decide whether or not you take part. Your participation is voluntary. If you do not wish to take part, then that is not a problem.

What if I change my mind?

If you change your mind, you are free to withdraw at any time during your participation in this study. If you want to withdraw, please let me know, and I will extract any data you contributed to the study and destroy them. If you decide to withdraw **after the focus group discussion** and contact me within one week after you have **attended the focus group discussion**, your data will be destroyed and not used. After this point, the analysis of the data will have commenced and your data will have been anonymised and pooled together with other people's data, so it will be impossible to take them out.

What are the possible disadvantages and risks of taking part?

There are no disadvantages or risks identified for participating in this study.

Will my data be identifiable?

After the **focus group discussion**, only I, the researcher conducting this study, will have access to the ideas you share with me. I will keep all personal information about you (e.g. your name and other information that can identify you) confidential, that is I will not share it with others. I will remove any personal information from the written record of your contribution. All reasonable steps will be taken to protect the anonymity of the participants involved in this project.

How will the information I share be used and what will happen to the results of the research study?

I will use the information you share with me for research purposes only. This will include my PhD thesis and possibly other publications like journal articles. I may also present the results of my study at academic or practitioner conferences. When writing up the findings from this study, I will reproduce some of the views and ideas you share with me. I will only use anonymised quotes from your responses **to the focus group discussion**, so that although I will use your exact words, all reasonable steps will be taken to protect your anonymity in publications.

How will my information be stored?

Your data will be stored in encrypted files (that is no-one other than me, the researcher, will be able to access them) and on password-protected computers. I will store hard copies of any data securely in locked cabinets in my office. I will keep data that can identify you separately from non-personal information. In accordance Lancaster University guidelines, I will keep the data securely for a minimum of ten years.

What if I have a question or concern?

If you have any queries or if you are unhappy with anything that happens concerning your participation in the study, please contact me, Mohammad Alsayed (m.mohammad1@lancaster.ac.uk) or my supervisor, Dr. Philip Moffitt (p.moffitt1@lancaster.ac.uk). If you have any concerns or complaints that you wish to discuss with a person who is not directly involved in the research, you can also contact Dr. Jan McArthur, Head of Educational Research Department Lancaster University. Below are Dr. McArthur's contact details:

Dr Jan McArthur
Head of Department
Educational Research
County South
Lancaster University
United Kingdom
LA1 4YD
Telephone: +44 (0) 1524 593572
Email: j.mcarthur@lancaster.ac.uk

This study has been reviewed and approved by the Faculty of Arts and Social Sciences and Lancaster Management School's Research Ethics Committee.

Appendix 4: Sample Consent Form

Lancaster University

Consent Form

An Evaluative Study of a Blended Learning Model Implemented in a Vocational Training Organisation in Saudi Arabia

Researcher: Mohammad Ahmad Alsayed Mohammad

Email Address: m.mohammad1@lancaster.ac.uk

Please tick each box in the table below.

Statement	Tick Box
1. I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time during my participation in this study and within one week after I took part in the study, without giving any reason. If I withdraw within one week of taking part in the study, my data will be removed. I understand that as part the focus group I will take part in, my data is part of the ongoing conversation and cannot be destroyed. I understand that the researcher will try to disregard my views when analysing the focus group data, but I am aware that this will not always be possible.	☐
3. I understand that any information disclosed within the focus group remains confidential to the group, and I will not discuss the focus group with or in front of anyone who was not involved unless I have the relevant person's express permission.	☐
4. I understand that any information given by me may be used in future reports, academic articles, publications, or presentations by the researcher, but my personal information will not be included, and all reasonable steps will be taken to protect the anonymity of the participants involved in this project.	☐
5. I understand that my name/ my organisation's name will not appear in any reports, articles, or presentation without my consent.	☐
6. I understand that the focus groups will be audio-recorded and transcribed, and that the data will be protected on encrypted devices and kept secure.	☐
7. I understand that data will be kept according to Lancaster University guidelines for a minimum of 10 years after the end of the study.	☐
8. I agree to take part in the above study.	☐

Participant's Details

Name of Participant…….
Date……

Signature……

Declaration of Researcher

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Name of Researcher……..
Date……

Signature……

One copy of this form will be given to the participant and the original kept in the researcher's files at Lancaster University.

Appendix 5: Teachers' Interview Guide

Teachers' Interview Guide

Semi-structured Interview

Part I: Introduction and Orientation

Thank you very much for agreeing to participate in this research. I am Mohammad Alsayed, your colleague in the Industrial Workforce Development Division, and I am doing PhD research at Lancaster University.

As indicated in the Participant Information Sheet I shared with you, the purpose of this interview is to learn from your experience about the effectiveness of the Blended Learning model in preparing your students for their job skills training and future jobs at large.

I will ask you some open-ended questions, and please take your time to think and give me as much detail as possible. Everything you say will be useful for me. If you find any question unclear, please tell me and I will reiterate and explain what I need to learn about.

I will be recording this interview using my cell phone. As also indicated in the Participant Information Sheet, only I will have access to this recording and its transcription, and all possible measures will be taken to ensure the security and confidentiality of what you share.

Part II: Interview Questions

1. In your opinion, how does the face-to-face component of Blended Learning facilitate the development of the areas below of vocational English for your students? Please give one or more examples for each area.
    - Oral communication
    - Written communication
    - Technical vocabulary
2. How does the self-directed component of Blended Learning facilitate the development of the areas below of vocational English for your students? Please give one or more examples for each area.
    - Oral communication
    - Written communication
    - Technical vocabulary
3. How do the face-to-face and self-directed components of Blended Learning complement each other in supporting your students' learning of vocational English?
4. To what extent does Blended Learning create a learning environment that sufficiently prepares your students for their future oil/gas jobs? Please give examples.
5. What challenges do you or your students encounter in implementing Blended Learning? How do you address these challenges?

6. How, in your opinion, should the Blended Learning model be improved to better prepare the students for their future jobs?

Part III: Closing

Thank you for your time and for sharing your experience. This has been very insightful for me and will be very useful for my research. If needed, I may come back to you for clarification on certain points when I start analysing the data. Also, I may need to come back to you after I have interviewed all participants and analysed the data to ensure that my analysis captures what you shared.

Appendix 6: Trainers' Interview Guide

Job Skills Trainers' Interview Guide
Semi-structured Interview

Part I: Introduction and Orientation

Thank you very much for agreeing to participate in this research. I am Mohammad Alsayed, your colleague in the Industrial Workforce Development Division, and I am doing PhD research at Lancaster University.

As indicated in the Participant Information Sheet I shared with you, the purpose of this interview is to learn from your experience about the preparedness of your students, who had completed their English studies in the ITC using Blended Learning, for their job skills classes.

I will ask you some open-ended questions, and please take your time to think and give me as much detail as possible. Everything you say will be useful for me. If you find any question unclear, please tell me and I will reiterate and explain what I need to learn about.

I will be recording this interview using my cell phone. As also indicated in the Participant Information Sheet, only I will have access to this recording and its transcription, and all possible measures will be taken to ensure the security and confidentiality of what you share.

Part II: Interview Questions

A) About the English skills of your students

1. How well do your students come equipped with the **English oral communication skills** needed for success in job skills classes? Please explain and give examples or situations.
2. How well do your students come equipped with the **English written communication skills** needed for success in job skills classes? Please explain and give examples or situations.
3. How well your students come equipped with the **English technical vocabulary** needed for success in job skills classes? Please explain and give examples or situations.
4. How should the blended English program be improved to better prepare the students for job skills training?

B) About your job skills training

5. Do you use Blended Learning in your job skills training? If so, how useful do you find it in developing your students' technical vocabulary? Please give examples.

Part III: Closing

Thank you for your time and for sharing your experience. This has been very insightful for me and will be very useful for my research. If needed, I may come back to you for clarification on certain points when I start analysing the data. Also, I may need to come back to you after I have interviewed all participants and analysed the data to ensure that my analysis captures what you shared.

Appendix 7: Students' Focus Group Script

Part I: Introduction and Orientation

Thank you very much for agreeing to participate in this research. I am Mohammad Alsayed, an employee in the Industrial Workforce Development Division, and I am doing PhD research at Lancaster University.

As indicated in the Participant Information Sheet I shared with you, the purpose of this focus group is to learn about your experience with studying vocational English using Blended Learning, and how this prepares you for your future work needs.

I will ask you some open-ended questions, and please take your time to think and give me as much detail as possible. Everything you say will be useful for me. If you find any question unclear, please tell me and I will reiterate and explain what I need to learn about. When your friend is speaking, please listen carefully and give them time to complete their ideas. You can agree or disagree with each other. If you would like to comment on each other's responses, please feel free to do so, but in order to keep this discussion organized, please raise your hand when you want to comment.

I will be recording this discussion using my cell phone. As also indicated in the Participant Information Sheet, only I will have access to this recording and its transcription, and all possible measures will be taken to ensure the security and confidentiality of what you share.

Before we start, briefly introduce yourselves and share your goals for learning English.

Part II: Focus Group Questions

Describe your experience with the Blended Learning of English by answering the following questions:

1. How does the face-to-face component of Blended Learning help you develop your English skills in the below areas? Please give one or more examples for each area.
    - Oral communication
    - Written communication
    - Technical vocabulary
2. How does the self-directed component of Blended Learning help you develop your English skills in the below areas? Please give one or more examples for each area.
    - Oral communication

- Written communication
- Technical vocabulary

3. Which activities (in-class or online) do you find most helpful in improving your English skills?
4. Please share examples of how the English you learn relates to the oil/gas industry.
5. What difficulties do you face with Blended Learning (in-class or online)? And how do you overcome them?
6. How should the Blended Learning program be improved to help you better in improving your English skills?

Part III: Closing

Thank you for your time and for sharing your experiences. This has been very insightful for me and will be very useful for my research. If needed, I may come back to you for clarification on certain points when I start analysing the data. Also, I may need to come back to you after I have analysed the data to ensure that my analysis captures what you shared.

Appendix 8: Trainees' Focus Group Script

Part I: Introduction and Orientation

Thank you very much for agreeing to participate in this research. I am Mohammad Alsayed, an employee in the Industrial Workforce Development Division, and I am doing PhD research at Lancaster University.

As indicated in the Participant Information Sheet I shared with you, the purpose of this focus group is to learn about your experience with studying vocational English using Blended Learning, and how this has prepared you for your current job skills study needs.

I will ask you some open-ended questions, and please take your time to think and give me as much detail as possible. Everything you say will be useful for me. If you find any question unclear, please tell me and I will reiterate and explain what I need to learn about. When your friend is speaking, please listen carefully and give them time to complete their ideas. You can agree or disagree with each other. If you would like to comment on each other's responses, please feel free to do so, but in order to keep this discussion organized, please raise your hand when you want to comment.

I will be recording this discussion using my cell phone. As also indicated in the Participant Information Sheet, only I will have access to this recording and its transcription, and all possible measures will be taken to ensure the security and confidentiality of what you share.

Before we start, briefly introduce yourselves and share your previous experience with the Blended Learning English program.

Part II: Focus Group Questions

Reflect on your experience learning English through Blended Learning.

1. How is the English language training you received (in-class or online) helping you in your current job skills classes? Please give examples/situations related to:
    a. Oral communication (in-class and online)
    b. Written communication (in-class and online)
    c. Technical vocabulary (in-class and online)
2. Which specific areas in the blended English program are very helpful for your current job skills training? Please explain.
3. Please name a situation in your job skills training where you found the Blended Learning experience very helpful.

4. Which areas of English do you feel less prepared for in the job skills training, even though you studied them in the Blended Learning program?
5. If you could change anything about the Blended Learning model, what would it be?

Part III: Closing

Thank you for your time and for sharing your experiences. This has been very insightful for me and will be very useful for my research. If needed, I may come back to you for clarification on certain points when I start analysing the data. Also, I may need to come back to you after I have analysed the data to ensure that my analysis captures what you shared.

Appendix 9: Teachers' Questionnaire

1. In your opinion, how does the face-to-face component of Blended Learning facilitate the development of the areas below of vocational English for your students? Please give one or more examples for each area.
    - Oral communication
    - Written communication
    - Technical vocabulary
2. How does the self-directed component of Blended Learning facilitate the development of the areas below of vocational English for your students? Please give one or more examples for each area.
    - Oral communication
    - Written communication
    - Technical vocabulary
3. How do the face-to-face and self-directed components of Blended Learning complement each other in supporting your students' learning of vocational English?
4. To what extent does Blended Learning create a learning environment that sufficiently prepares your students for their future oil/gas jobs? Please give examples.
5. What challenges do you or your students encounter in implementing Blended Learning? How do you address these challenges?
6. How, in your opinion, should the Blended Learning model be improved to better prepare the students for their future jobs?

Appendix 10: Trainers' Questionnaire

A) About the English skills of your students

1. How well do your students come equipped with the **English oral communication skills** needed for success in job skills classes? Please explain and give examples or situations.
2. How well do your students come equipped with the **English written communication skills** needed for success in job skills classes? Please explain and give examples or situations.
3. How well your students come equipped with the **English technical vocabulary** needed for success in job skills classes? Please explain and give examples or situations.
4. How should the blended English program be improved to better prepare the students for job skills training?

B) About your job skills training

5. Do you use Blended Learning in your job skills training? If so, how useful do you find it in developing your students' technical vocabulary? Please give examples.

Appendix 11: Students' Questionnaire

1. How does the face-to-face component of Blended Learning help you develop your English skills in the below areas? Please give one or more examples for each area.
    - Oral communication
    - Written communication
    - Technical vocabulary
2. How does the self-directed component of Blended Learning help you develop your English skills in the below areas? Please give one or more examples for each area.
    - Oral communication
    - Written communication
    - Technical vocabulary
3. Which activities (in-class or online) do you find most helpful in improving your English skills?
4. Please share examples of how the English you learn relates to the oil/gas industry.
5. What difficulties do you face with Blended Learning (in-class or online)? And how do you overcome them?
6. How should the Blended Learning program be improved to help you better in improving your English skills?

Appendix 12: Email Invitation for Questionnaire Participants

Subject Line: Questionnaire on Blended Learning

Dear Xxxxxx,

Thank you very much for initially agreeing to participate in this research project for my PhD. As explained in our phone discussion, the purpose of this questionnaire is to learn from your experience about the Blended Learning implemented in our organisation and how it equips the students with the vocational English skills they need for their future jobs. More details about this are in the attached “Participant Information Sheet”.

Kindly follow the steps below:

1. Read **attachment 1** “Participant Information Sheet”.
2. If you still agree to take part in this study, print out **attachment 2** “Consent Form”. Tick the boxes, write your name, date, and signature, then scan and email the completed form to me. I will sign and share a copy with you.
3. Answer the questions in **attachment 3** “Questionnaire”, then email the completed file to me. Please provide as much detail as possible.

If needed, I may come back to you for clarification on certain points when I start analysing the data. Also, I may need to come back to you after I have received feedback from all participants and analysed the data to ensure that my analysis captures what you shared.

I really appreciate your support.

Best regards,

Mohammad