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Needs Analysis on a Work-Process-Based Cabin Service English Course for Chinese Vocational College Students

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Abstract

This study investigates the specific language needs of vocational college students enrolled in a Civil Aviation English course within the cabin service program at a vocational institution in Chongqing, China. The program is designed to cultivate highly skilled service professionals through a blend of theoretical knowledge, cultural understanding, and practical training. To ensure that the English course effectively prepares students for real-world cabin service tasks, a comprehensive needs analysis was conducted using a questionnaire adapted from established frameworks. Stratified random sampling was used to gather responses from 85 students across different academic years. The findings reveal that speaking is the most essential yet challenging skill for cabin crew duties, especially in high-pressure communication scenarios. Students showed a strong preference for interactive, task-based learning methods such as role-playing and real-life simulations, while also expressing difficulties with aviation-specific vocabulary. These insights highlight a gap between current instructional practices and the demands of the aviation industry. The study recommends adopting a work-process-based curriculum design aligned with authentic workplace contexts and customized to specific aviation roles, enhancing both course relevance and students' career readiness.

Keywords

Needs Analysis, Work Process, Cabin Service English Course

1. Introduction

The aviation industry is a rapidly evolving sector within today's fast-paced global network. A key indicator of its expansion is the increasing number of airline com-

panies, driven by the rising demand for air travel and cargo transportation, with thousands of flights operating daily worldwide (Satvindar Singh et al., 2021). Given its international nature, airline companies employ both local and foreign staff as cabin crew and pilots, serving passengers from diverse nations. Consequently, English, as a globally accepted language, plays a crucial role in ensuring accurate and effective communication between passengers and staff (Koparan, 2016).

The rapid growth of the aviation market, driven by increasing business travel, exhibitions, and tourism, has created a rising demand for international flight routes and highly qualified aviation professionals with strong intercultural communication skills in English (Liu & Zhu, 2016). Flight attendants play a crucial role in shaping passengers' in-flight experience by providing assistance, ensuring smooth communication, and creating a welcoming atmosphere through gestures such as warm greetings and attentive service (Öztırak, 2023). Flight attendants face increasing challenges in communication, as they must effectively interact in English with passengers from diverse cultural backgrounds to provide quality in-cabin service (Liu & Zhu, 2016). In China, statistics on the current demand for English in civil aviation jobs indicate that 90% of civil aviation enterprises require candidates to have a certain level of English proficiency, with around 50% expecting CET-4 or CET-6 certification, nearly 58% conducting English interviews, and a few requiring written English tests, highlighting the common emphasis on English knowledge and skills in the industry (An, 2023).

Cabin Service English follows a standardized linguistic framework tailored specifically for the aviation industry, distinguishing it from casual everyday conversation. This structured, concise, and technical language relies on numbers and descriptors to swiftly and accurately convey critical information (Demirdöken & Atay, 2024). However, in addition to mastering this specialized language, graduates must develop practical skills and competencies beyond the theoretical knowledge typically provided in higher education programs (Perusso & Wagenaar, 2021). In modern vocational education, curricula should not be structured solely on logical relationships but should instead align with vocational roles. The development of professional competencies should serve as the foundation, emphasizing continuity and coherence in talent cultivation to create an integrated training model (An, 2023).

To improve the relevance and efficiency of vocational education, contemporary curricula should be designed to incorporate authentic practical work, work-process demands, and the work process itself (Spöttl & Loose, 2020). Nevertheless, despite acknowledging these requirements, Cabin Service English instruction in China has made limited progress and continues to fall short in addressing the industry's need for highly proficient English professionals (Yan, 2022). Overcoming these challenges necessitates moving beyond conventional teaching methods and embedding work-process components into the curriculum to better respond to the evolving demands of today's workplace (Spöttl & Loose, 2020). This transition

toward a work-process-oriented approach prompts critical discussions on how educational content and vocational knowledge can be effectively tailored to align with students' needs and competence development (Spöttl & Loose, 2020).

Cabin Service English falls under the broader category of English for Specific Purposes (ESP) in English-language teaching (Richards, 2001). ESP emphasizes learners' specific language needs rather than adhering to a general English syllabus (Richards, 2001). Hutchinson and Waters (1987) define ESP as an approach in which all content and methodological decisions are guided by learners' objectives. Consequently, needs analysis is the first step in ESP curriculum development (Richards, 2001). By identifying students' specific linguistic and professional requirements, instructors can design more effective teaching strategies to support learning (Dudley-Evans & St. John, 1998; Hutchinson & Waters, 1987; Nunan, 2017).

In light of the above discussion, this study aims to conduct a needs analysis of a Work-Process-Based Civil Aviation English Course for Chinese Vocational College Students. To achieve this, the following research questions were formulated to guide the study:

1. What English language skills do Chinese vocational college students need to effectively perform work-related tasks in civil aviation settings?

2. What are the current English proficiency levels of Chinese vocational college students preparing for civil aviation careers?

3. What challenges do Chinese vocational college students face when using English in preparation for civil aviation careers?

4. What instructional strategies do vocational college students prefer for improving their English proficiency in a work-process-based civil aviation English course?

2. Literature Review

2.1. Needs Analysis

Needs analysis, a fundamental aspect of ESP, plays a crucial role in shaping various components of language education. To determine the reasons learners should study an ESP course, it is necessary to collect information about their specific needs—an approach widely recognized as one of ESP's most significant contributions to English language teaching (Kherraz, 2022). This process influences multiple aspects of the educational framework, including course design, the development of teaching materials, instructional strategies, and the evaluation of both students and the overall course (Bocanegra-Valle, 2016; Lou et al., 2020; Viktorovna & Viktorovna, 2020). Failure to address these needs, as noted by language experts such as Jeong Park (2021), can hinder the advancement of ESP instruction. Furthermore, Kurniawati (2022) stresses that for vocational students, developing English skills tailored to their field is vital for enhancing future career prospects. Consequently, needs analysis is widely regarded as a cornerstone of ESP course development (Kherraz, 2022; Rofikah et al., 2022; Salamanca Gon-

zález, 2020).

Target Situation Analysis, Present Situation Analysis, and Learning Situation Analysis are universally acknowledged as three crucial and fundamental approaches for scrutinizing the language needs of learners (Jitpanich et al., 2022; Sujana et al., 2020). To achieve this, a needs analysis was conducted through a questionnaire, designed following the needs analysis frameworks of Hutchinson and Waters (1987) and Graves (2000). The analysis focused on three key areas: (a) target situation analysis, which examines the language skills learners need in real-world contexts; (b) present situation analysis, which assesses learners' current proficiency and challenges in using the language; and (c) learning situation analysis, which explores the most effective language learning methods for the learners.

2.2. Work-Process Based Cabin Service English Course

The Cabin Service English Course is designed to enhance cabin crew's language proficiency and intercultural communication skills, addressing language barriers and cultural differences to improve service quality and passenger satisfaction in a global setting (Ji, 2024). By integrating linguistic and cross-cultural communication knowledge, the course prepares students to communicate effectively, deliver high-quality service, and ensure passenger safety in diverse aviation environments (Ma, 2023). Higher vocational education for cabin crew has traditionally focused on combining theoretical knowledge with practical skills to cultivate well-rounded professionals (Ma, 2023).

With the rapid advancements in the aviation industry, traditional educational models struggle to meet their diverse demands, leading to a growing mismatch between academic training and industry expectations (Jiao, 2020). The traditional teaching method for a Cabin Service English Course relies on structured, teacher-centered instruction, emphasizing rote learning and standardized materials. In the cabin crew sector of the aviation service industry, practical skills are a key measure of professional competence, yet traditional teaching models are increasingly inadequate to meet evolving industry demands amid global competition and technological advancements (Jiao, 2020). The traditional instructor-led approach relies heavily on lectures and demonstrations, limiting opportunities for students to actively develop practical skills for real-world service scenarios. Rote memorization of vocabulary prioritizes quick recall over meaningful language application, while standardized textbooks create a uniform learning experience but may fail to address individual learning needs or industry-specific adaptability (Sharma et al., 2024). Although integrating traditional culture into the curriculum can enhance cross-cultural communication skills, it may not be sufficient to fully prepare students for the dynamic linguistic and service challenges in cabin service (Zhang, 2024).

The method of designing effective qualifications by first analyzing work processes was initially developed by German experts (Tütlys & Spöttl, 2017). This approach involves a comprehensive examination of tasks within real work envi-

ronments, resulting in the creation of work-process-based occupational standards and ultimately leading to well-rounded and contextually relevant occupational competence (Spöttl & Loose, 2014). The process of developing a curriculum based on work processes is referred to as the co-production of vocational curricula (Bernard, 2000). Its goal is to eliminate unnecessary theoretical content from vocational subjects while incorporating relevant theoretical and practical knowledge aligned with future job roles. However, while this method provides a solid foundation for language acquisition, its lack of engagement and adaptability to individual learning needs highlights the necessity of conducting a thorough needs analysis.

3. Methodology

3.1. Context

This research was conducted at a comprehensive vocational college in Chongqing, focusing on the cabin service program within the Automobile and Aviation School. The vocational college in Chongqing attaches great importance to the Civil Aviation (Air Crew) program, viewing it as a key driver for international talent cultivation under initiatives like the Western China Land-Sea New Corridor and vocational education going global. As a core course, Cabin Service English is designed to align with international service standards, enhancing students' practical English skills and cross-cultural communication abilities. This prepares graduates for both domestic and overseas aviation markets, supporting the global vision of China' s modern vocational education.

Cabin Service English Course, guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and the spirit of the 20th National Congress of the Communist Party of China, innovatively constructs a "three-dimensional progressive" education system (knowledge, competency, quality) rooted in vocational education. Aligned with the Air Crew Vocational Skill Level Standard (3.0) and 1+X Air Crew Certificate Examination Syllabus (2.0), it integrates industry standards and core competencies, employing a "Three Stages and Nine Steps" framework: knowledge (understanding-comprehension-application), skills (imitation-operation-expansion), and values (awareness-experience-practice). However, to ensure the course aligns with industry expectations and effectively supports students' career readiness, a comprehensive needs analysis is essential. This study explores the specific language requirements of cabin crew roles and examines how a work-process-based approach can enhance the course's relevance, engagement, and practical applicability.

3.3. Participants

For descriptive studies, researchers are encouraged to maximize their sample size based on available time and resources (Fraenkel et al., 2012). A larger sample can enhance the reliability of the research findings (Cohen et al., 2018). In this study, stratified random sampling method was used. Stratified random sampling im-

proves estimation accuracy by dividing a population into distinct subgroups and randomly selecting participants from each, ensuring balanced representation across key characteristics, as demonstrated in the study's comparative analysis of sampling methods (Peanpailoon et al., 2024). A total of 85 students from the cabin service program participated in this study, representing first-year, second year, and third-year students. These participants were selected using stratified random sampling to ensure a representative sample of students enrolled in the Civil Aviation English course at the vocational college in Chongqing. Stratified random sampling was employed to reduce bias and ensure that students from different academic years were proportionally represented.

3.4. Research Instruments

In this study, a questionnaire was designed to examine the needs of Chinese vocational college students for a work-process-based Civil Aviation English course, with a focus on language skills, professional contexts, and learning preferences to enhance course design. The questionnaire, adapted from Supriadi & Purbani (2019) and Kaya (2021), consisted of three sections. The first section gathered demographic information about the students, while the second section focused on needs analysis, divided into target situation analysis, present situation analysis, and learning situation analysis. The target situation analysis examined the required English skills for Civil Aviation English, assessing the importance of the four language skills and identifying essential topics, work-related language functions, and expressions. The present situation analysis explored students' difficulties in reading, writing, speaking, and listening to understand their current proficiency and challenges. The learning situation analysis investigated students' preferences for specific expressions or language functions needed to support occupation-related knowledge, along with their preferred process-based learning strategies. All items in the second section were measured using a five-point Likert scale.

3.5. Data Collection and Analysis

The collected data were analyzed quantitatively using descriptive statistics, including frequency, percentage, and means to identify overall trends in students' language skill needs, learning difficulties, and preferences for course content and instructional strategies. A comparative analysis was conducted to examine differences across academic years, providing insights into how students' needs evolved throughout their studies. The Likert-scale responses were interpreted to assess the relative importance of various language skills and professional communication scenarios. All statistical analyses were conducted using SPSS to ensure accuracy and reliability in the findings.

4. Findings

A total of 85 valid questionnaires were collected. The questionnaire covered participants' background information, English proficiency, perceived importance of

different language skills and course topics, difficulties encountered in learning and work, and suggestions for course improvement. By analyzing these data, the study sought to gain deeper insights into students' needs and challenges in learning Civil Aviation English, providing a reference for optimizing course design and teaching methods.

4.1. What English Language Skills Do Chinese Vocational College Students Need to Effectively Perform Work-Related Tasks in Civil Aviation Settings?

In general, listening and speaking were recognized by most respondents as the most essential English skills for performing effectively in cabin crew roles (See Table 1). According to the results of the questionnaire survey, the average scores for listening and speaking skills were 4.35 and 4.38 respectively, indicating a strong consensus among respondents regarding the importance of these two skills. Specifically, more than 51% of the participants rated listening and speaking as "very important," highlighting their perceived relevance to the job requirements in the field of cabin service. In contrast, the average scores for reading and writing were relatively lower, at 4.16 and 4.08 respectively, suggesting that these skills are considered somewhat less critical in the context of cabin crew duties. Overall, English language proficiency is widely regarded as a core competency in the civil aviation service sector, with listening and speaking abilities standing out as particularly vital for effective communication with international passengers and the successful performance of professional responsibilities on board.

Table 2 presents college students' perceptions of the importance of various work-related topics for their future careers. Overall, students rated all items as important, with mean scores (M) ranging from 4.34 to 4.53 on a 5-point Likert scale. The topics of Safety (M = 4.53) and Emergency (M = 4.53) received the highest ratings, indicating that safety-related knowledge is regarded as most essential. Passenger services (M = 4.51) and Food and beverage (M = 4.51) were also rated highly, showing the emphasis placed on service quality. Preparation before flight (M = 4.46), Health and medical issue (M = 4.48), and Boarding to the plane (M = 4.49) were similarly considered important. The topic of Duty-free Sales received the lowest score (M = 4.34), suggesting that commercial aspects are perceived as relatively less important. These results reflect students' greater concern for safety, service, and operational preparedness in their anticipated work environment.

Table 1. College students' perceptions of the importance of the four language skills for their future work domain.

Items	Strongly Unimportant	Unimportant	Slightly Important	Important	Strongly Important	Mean
Listening	1 (1.18%)	2 (2.35%)	7 (8.24%)	31 (36.47%)	44 (51.76%)	4.35
Speaking	1 (1.18%)	2 (2.35%)	5 (5.88%)	33 (38.82%)	44 (51.76%)	4.38
Reading	1 (1.18%)	3 (3.53%)	16 (18.82%)	26 (30.59%)	39 (45.88%)	4.16
Writing	1 (1.18%)	4 (4.71%)	19 (22.35%)	24 (28.24%)	37 (43.53%)	4.08

Table 2. College students' perceptions of the importance of the working topics for their future work domain.

Items	Strongly Unimportant	Unimportant	Slightly Important	Important	Strongly Important	Mean
Preparation before flight	0 (0%)	1 (1.18%)	8 (9.41%)	27 (31.76%)	49 (57.65%)	4.46
Airplane features	0 (0%)	2 (2.35%)	8 (9.41%)	28 (32.94%)	47 (55.29%)	4.41
Boarding to the plane	0 (0%)	1 (1.18%)	5 (5.88%)	30 (35.29%)	49 (57.65%)	4.49
Passenger services	0 (0%)	1 (1.18%)	6 (7.06%)	27 (31.76%)	51 (60%)	4.51
Food and beverage	0 (0%)	1 (1.18%)	5 (5.88%)	29 (34.12%)	50 (58.82%)	4.51
Health and medical issue	0 (0%)	1 (1.18%)	6 (7.06%)	29 (34.12%)	49 (57.65%)	4.48
Safety	0 (0%)	1 (1.18%)	5 (5.88%)	27 (31.76%)	52 (61.18%)	4.53
Emergency	0 (0%)	1 (1.18%)	5 (5.88%)	27 (31.76%)	52 (61.18%)	4.53
Duty-free Sales	0 (0%)	2 (2.35%)	10 (11.76%)	30 (35.29%)	43 (50.59%)	4.34

4.2. What Are the Current English Proficiency Levels of Chinese Vocational College Students Preparing for Civil Aviation Careers?

Table 3 summarizes college students' self-assessed proficiency levels across the four core language skills: listening, speaking, reading, and writing. It reveals that college students reported the lowest proficiency in speaking (M = 3.15) and listening (M = 3.19), with a high percentage rating themselves as "Incompetent"—44.71% for speaking and 45.88% for listening. These two skills had the lowest mean scores and the smallest proportion of students rating themselves as "Very Competent." In contrast, reading (M = 3.21) and writing (M = 3.24) were relatively stronger, though still with notable weakness, as 36.47% of students rated themselves as "Very Incompetent" or "Incompetent" in reading, and 35.3% in writing. Overall, the data suggest that speaking and listening are the most challenging areas for students, while reading and writing are perceived with slightly more confidence but still show room for improvement.

Table 4 illustrates college students' self-assessed proficiency in various aspects of Cabin Service English. Overall, students rated themselves as generally "competent" across all items, with mean scores ranging narrowly from 3.09 to 3.19. The highest-rated skill was the ability to understand and follow English instructions for standard operating procedures (M = 3.19), indicating moderate confidence in comprehension of procedural language. Slightly lower mean scores were observed for responding quickly during practical operations (M = 3.12), using English fluently under pressure (M = 3.12), and remembering and correctly using professional terminology (M = 3.14). The lowest-rated item was understanding passengers' needs and responding accurately in English (M = 3.09), suggesting a particular challenge in real-time, customer-focused communication. These results highlight the need to strengthen students applied English communication skills, especially in high-pressure and customer service scenarios.

Table 3. College students' current proficiency level of four language skills.

Items	Very Incompetent	Incompetent	Competent	Moderately Competent	Very Competent	Mean
Reading	15 (17.65%)	16 (18.82%)	38 (44.71%)	12 (14.12%)	4 (4.71%)	3.21
Writing	15 (17.65%)	15 (17.65%)	41 (48.24%)	11 (12.94%)	3 (3.53%)	3.24
Listening	4 (4.71%)	39 (45.88%)	17 (20%)	9 (10.59%)	16 (18.82%)	3.19
Speaking	4 (4.71%)	38 (44.71%)	19 (22.35%)	8 (9.41%)	16 (18.82%)	3.15

Table 4. College students' current proficiency of cabin service English process.

Items	Very Incompetent	Incompetent	Competent	Moderately Competent	Very Competent	Mean
Remember and correctly use professional terminology related to the workflow.	4 (4.71%)	19 (22.35%)	37 (43.53%)	11 (12.94%)	14 (16.47%)	3.14
Understand and follow English instructions for standard operating procedures.	3 (3.53%)	20 (23.53%)	34 (40%)	14 (16.47%)	14 (16.47%)	3.19
Respond quickly and express oneself in English during practical operations.	4 (4.71%)	20 (23.53%)	37 (43.53%)	10 (11.76%)	14 (16.47%)	3.12
Use English fluently under pressure, such as in emergencies or unexpected situations.	3 (3.53%)	22 (25.88%)	36 (42.35%)	10 (11.76%)	14 (16.47%)	3.12
Understand passengers' needs and respond accurately in English.	3 (3.53%)	22 (25.88%)	38 (44.71%)	8 (9.41%)	14 (16.47%)	3.09

4.3. What Challenges Do Chinese Vocational College Students Face When Using English in Preparation for Civil Aviation Careers?

Table 5 presents students' difficulties in speaking work-related English in the civil aviation context. Overall, respondents reported moderate challenges across all items, with mean scores ranging from 3.16 to 3.21. The greatest difficulty was reported in responding promptly and appropriately in English after hearing passengers' needs (M = 3.21), reflecting challenges in real-time, situational communication—such as answering sudden passenger inquiries or handling in-flight service requests. Other notable difficulties include fear of making grammatical mistakes during formal announcements (M = 3.18) and difficulty using accurate professional terminology (M = 3.18), which suggest that anxiety and a limited command of aviation-specific language hinder effective spoken performance. These findings point to the need for targeted training in oral English for service interactions, especially under time pressure or unexpected situations like resolving complaints or assisting passengers with special needs.

Following this, Table 6 explores listening-related challenges in the same domain. Students consistently reported moderate listening difficulties, with mean scores ranging from 3.05 to 3.14. The most significant issue was the difficulty in remembering aviation-related expressions and professional terminology (M =

Table 5. Difficulties encountered in speaking work-related English in the civil aviation field.

Items	Never	Seldom	Sometimes	Often	Always	Mean
Have difficulty speaking when providing services to passengers.	5 (5.88%)	14 (16.47%)	40 (47.06%)	14 (16.47%)	12 (14.12%)	3.16
Find it hard to organize language and express ideas when explaining information to passengers or crew members.	5 (5.88%)	13 (15.29%)	40 (47.06%)	16 (18.82%)	11 (12.94%)	3.18
Afraid to speak during announcements or interactions with passengers due to fear of making grammatical mistakes.	5 (5.88%)	14 (16.47%)	38 (44.71%)	17 (20%)	11 (12.94%)	3.18
Do not know how to express relevant information when responding to passengers' inquiries or unexpected situations.	5 (5.88%)	14 (16.47%)	38 (44.71%)	17 (20%)	11 (12.94%)	3.18
Have trouble with vocabulary pronunciation during in-flight announcements or communication with passengers.	5 (5.88%)	15 (17.65%)	36 (42.35%)	17 (20%)	12 (14.12%)	3.19
Unable to quickly respond or express appropriate content in English after hearing passengers' needs.	5 (5.88%)	14 (16.47%)	36 (42.35%)	18 (21.18%)	12 (14.12%)	3.21
Unable to correctly use aviation-related professional terminology (e.g., safety demonstrations, cabin services).	6 (7.06%)	14 (16.47%)	36 (42.35%)	17 (20%)	12 (14.12%)	3.18
Struggle to communicate fluently in English due to insufficient knowledge of grammar and sentence structure.	5 (5.88%)	14 (16.47%)	38 (44.71%)	16 (18.82%)	12 (14.12%)	3.19

Table 6. Difficulties encountered in listening work-related English in the civil aviation field.

Items	Never	Seldom	Sometimes	Often	Always	Mean
Have difficulty understanding the teacher's explanation of aviation English terms and expressions in class.	7 (8.24%)	16 (18.82%)	37 (43.53%)	16 (18.82%)	9 (10.59%)	3.05
Struggle to comprehend oral instructions from the teacher or classmates during simulated cabin service or practical training sessions.	7 (8.24%)	14 (16.47%)	40 (47.06%)	15 (17.65%)	9 (10.59%)	3.06
Find it hard to understand longer descriptions in civil aviation English teaching videos or real flight dialogues.	7 (8.24%)	13 (15.29%)	39 (45.88%)	17 (20%)	9 (10.59%)	3.09
Unable to accurately understand the needs of "passengers" (played by classmates or the teacher) during role-plays or task-based training.	7 (8.24%)	13 (15.29%)	38 (44.71%)	18 (21.18%)	9 (10.59%)	3.11
Have difficulty identifying key information when listening to civil aviation English audio materials.	7 (8.24%)	12 (14.12%)	39 (45.88%)	18 (21.18%)	9 (10.59%)	3.12
Struggle to understand English content such as in-flight announcements, boarding gate notifications, or safety demonstrations.	7 (8.24%)	12 (14.12%)	40 (47.06%)	17 (20%)	9 (10.59%)	3.11
Find it challenging to adapt to different English accents (e.g., British, American, or other non-native speakers) during listening exercises.	7 (8.24%)	14 (16.47%)	36 (42.35%)	19 (22.35%)	9 (10.59%)	3.11
Have difficulty remembering aviation service-related expressions and professional terminology heard in class.	7 (8.24%)	11 (12.94%)	39 (45.88%)	19 (22.35%)	9 (10.59%)	3.14

3.14), suggesting a need for more retention-based listening practice. Other notable concerns included understanding different English accents (M = 3.11) and accurately comprehending passengers' needs during simulations (M = 3.11). These results underscore the importance of exposing students to a wider variety of spoken English input, including real-world scenarios and accent diversity.

Table 7 shifts the focus to reading difficulties. Students reported slightly lower levels of difficulty in this area, with mean scores ranging from 3.08 to 3.16. The most prominent challenge was understanding content in in-flight safety instructions, passenger manuals, or aviation regulations (M = 3.16), followed closely by identifying key information in flight-related documents (M = 3.14). This suggests that while students are generally able to comprehend basic texts, interpreting detailed or technical reading materials remains an area for improvement. Providing targeted reading strategies and specialized vocabulary support may help alleviate these difficulties.

Finally, Table 8 addresses challenges in writing work-related English. Mean scores in this section were fairly consistent (M = 3.09 to 3.15), reflecting a moderate level of difficulty. The top issues included using professional vocabulary for drafting in-flight announcements (M = 3.15) and developing ideas for emails or reports (M = 3.15), indicating that students often struggle with both content generation and linguistic accuracy. Problems with paragraph organization (M = 3.13) and clearly expressing thoughts (M = 3.12) were also common. These findings suggest that writing instruction should focus not only on language mechanics but also on structuring professional documents relevant to cabin service duties.

Table 7. Difficulties encountered in reading work-related English in the civil aviation field.

Items	Never	Seldom	Sometimes	Often	Always	Mean
Have difficulty understanding English content in in-flight safety instructions, passenger manuals, or aviation regulations.	8 (9.41%)	8 (9.41%)	41 (48.24%)	18 (21.18%)	10 (11.76%)	3.16
Find it challenging to quickly identify key information when reading English flight details, passenger lists, or work schedules.	8 (9.41%)	9 (10.59%)	41 (48.24%)	17 (20%)	10 (11.76%)	3.14
Have trouble quickly locating relevant information when checking flight timetables, boarding passes, or passenger records.	8 (9.41%)	9 (10.59%)	42 (49.41%)	17 (20%)	9 (10.59%)	3.12
Struggle to understand English regulatory documents issued by the airline.	8 (9.41%)	9 (10.59%)	43 (50.59%)	16 (18.82%)	9 (10.59%)	3.11
Have difficulty understanding English emergency response guidelines.	8 (9.41%)	9 (10.59%)	41 (48.24%)	18 (21.18%)	9 (10.59%)	3.13
Find it hard to comprehend English crew manuals or cabin service procedures.	8 (9.41%)	9 (10.59%)	45 (52.94%)	14 (16.47%)	9 (10.59%)	3.08

Table 8. Difficulties encountered in writing work-related English in the civil aviation field.

Items	Never	Seldom	Sometimes	Often	Always	Mean
Have difficulty using correct punctuation and spelling when filling out English passenger reports, service records, or work logs.	8 (9.41%)	10 (11.76%)	40 (47.06%)	18 (21.18%)	9 (10.59%)	3.12
Struggle to organize clear sentence structures when writing English passenger communication records or safety reports.	8 (9.41%)	8 (9.41%)	46 (54.12%)	14 (16.47%)	9 (10.59%)	3.09
Have difficulty using appropriate professional vocabulary when drafting English in-flight announcements or passenger notifications.	8 (9.41%)	7 (8.24%)	43 (50.59%)	18 (21.18%)	9 (10.59%)	3.15
Find it challenging to organize paragraphs and present content logically when writing English work reports or service process descriptions.	8 (9.41%)	8 (9.41%)	44 (51.76%)	15 (17.65%)	10 (11.76%)	3.13
Have trouble accurately expressing thoughts in English when writing about passenger needs or emergency situations.	8 (9.41%)	7 (8.24%)	44 (51.76%)	17 (20%)	9 (10.59%)	3.14
Struggle to develop ideas when writing English emails, complaint responses, or reports.	8 (9.41%)	7 (8.24%)	43 (50.59%)	18 (21.18%)	9 (10.59%)	3.15
Have difficulty expressing thoughts clearly and accurately in English written communication.	8 (9.41%)	7 (8.24%)	46 (54.12%)	15 (17.65%)	9 (10.59%)	3.12

4.4. What Instructional Strategies Do Vocational College Students Prefer for Improving Their English Proficiency in a Work-Process-Based Civil Aviation English Course?

In the process of enhancing English language skills within the civil aviation context, learners expressed clear challenges in listening and speaking, particularly when required to respond quickly and accurately in real-time service situations. These difficulties were especially prominent in tasks like making announcements, handling passenger inquiries, and communicating with crew members. Table 9 shows that learners highly valued integrating English practice with specific workflow scenarios. Situations such as passenger check-in, in-flight service, and safety demonstrations received the highest mean scores (M = 3.74), indicating that these contexts are not only relevant but also directly target the skills students find most difficult—listening comprehension and spoken expression in high-pressure, real-world settings.

Table 10 further highlights that students preferred instructional strategies that align closely with these challenging scenarios. Practical, interactive methods such as role play (M = 3.73), task-driven learning (M = 3.71), safety and emergency simulations (M = 3.71), and group exercises (M = 3.71) were rated highest, demonstrating a strong preference for experiential learning. These approaches allow learners to repeatedly practice listening to instructions, processing real-time information, and delivering spoken responses in context—addressing their communication difficulties directly. Even strategies like scenario simulations (M =

Table 9. Learning English in workflow scenarios to improve English language skills.

Items	Strongly Disagree	Disagree	Agree	Somewhat Agree	Strongly Agree	Mean
Passenger Check-in	2 (2.35%)	2 (2.35%)	39 (45.88%)	15 (17.65%)	27 (31.76%)	3.74
Cabin Welcome and Passenger Guidance	2 (2.35%)	2 (2.35%)	40 (47.06%)	14 (16.47%)	27 (31.76%)	3.73
In-flight Announcements	2 (2.35%)	2 (2.35%)	40 (47.06%)	14 (16.47%)	27 (31.76%)	3.73
In-flight Service	2 (2.35%)	2 (2.35%)	39 (45.88%)	15 (17.65%)	27 (31.76%)	3.74
Safety Demonstration and Emergency Handling	2 (2.35%)	2 (2.35%)	39 (45.88%)	15 (17.65%)	27 (31.76%)	3.74
Handling Passenger Complaints and Requests	2 (2.35%)	2 (2.35%)	39 (45.88%)	16 (18.82%)	26 (30.59%)	3.73
Crew Communication and Reporting	2 (2.35%)	2 (2.35%)	40 (47.06%)	15 (17.65%)	26 (30.59%)	3.72

Table 10. Learning strategies for practice workflow-based English in civil aviation English courses.

Items	Strongly Disagree	Disagree	Agree	Somewhat Agree	Strongly Agree	Mean
Role Play	3 (3.53%)	2 (2.35%)	38 (44.71%)	14 (16.47%)	28 (32.94%)	3.73
Real-life Scenario Simulation	3 (3.53%)	2 (2.35%)	41 (48.24%)	12 (14.12%)	27 (31.76%)	3.68
Task-driven Learning	3 (3.53%)	2 (2.35%)	39 (45.88%)	14 (16.47%)	27 (31.76%)	3.71
Watching Real Work Scenario Videos and Language Analysis	3 (3.53%)	2 (2.35%)	40 (47.06%)	13 (15.29%)	27 (31.76%)	3.69
Safety Demonstration and Emergency Handling	3 (3.53%)	2 (2.35%)	39 (45.88%)	14 (16.47%)	27 (31.76%)	3.71
Interactive Group Exercises	3 (3.53%)	2 (2.35%)	39 (45.88%)	14 (16.47%)	27 (31.76%)	3.71
Online Simulation Dialogue Training	3 (3.53%)	2 (2.35%)	41 (48.24%)	13 (15.29%)	26 (30.59%)	3.67

3.68) and online dialogue training (M = 3.67) received positive support, suggesting that both in-person and digital task-based methods are effective in building confidence and speaking fluency.

Finally, the suggestions in Table 11 reinforce students' desire for authentic, job-relevant learning environments that can reduce anxiety and improve communication performance. Top-rated recommendations included increasing training that mirrors real work settings (M = 3.80), adopting immersive methods like airport internships and in-flight training (M = 3.80), and incorporating case-based learning (M = 3.80). These suggestions point to the need for learning experiences that simulate the complexity and immediacy of actual airline operations, helping learners improve both listening and speaking skills in meaningful contexts. Overall, the alignment between perceived language difficulties and preferred instructional strategies underscores the importance of context-rich, experience-based teaching in civil aviation English education.

Table 11. Suggestions for optimization of civil aviation English courses to better match the actual workflow.

Items	Strongly Disagree	Disagree	Agree	Somewhat Agree	Strongly Agree	Mean
Increase simulated training courses to align with real work environments.	2 (2.35%)	2 (2.35%)	39 (45.88%)	10 (11.76%)	32 (37.65%)	3.8
Provide language practice materials based on real work scenarios, such as flight announcements and crew communication examples.	2 (2.35%)	2 (2.35%)	39 (45.88%)	11 (12.94%)	31 (36.47%)	3.79
Adopt immersive teaching methods, such as airport internships and in-flight training.	2 (2.35%)	2 (2.35%)	39 (45.88%)	10 (11.76%)	32 (37.65%)	3.8
Set up customized English learning content for different roles, such as flight attendants and ground staff.	2 (2.35%)	3 (3.53%)	39 (45.88%)	9 (10.59%)	32 (37.65%)	3.78
Increase case-based learning, such as analyzing real flight events and language training.	2 (2.35%)	2 (2.35%)	40 (47.06%)	8 (9.41%)	33 (38.82%)	3.8

5. Discussion and Conclusion

In conclusion, the results of this needs analysis—conducted within the context of work-process-based curriculum design for vocational civil aviation English—highlight several key areas for improvement. While speaking skills were widely recognized by participants as essential for cabin crew responsibilities, many reported significant challenges in this area, especially when communicating under pressure. As noted by Tosqui-Lucks and de Castro Santana (2022), effective speaking is vital in high-stress scenarios to ensure clear and accurate communication, which minimizes the risk of misunderstandings. Additionally, there is a strong demand for reform in instructional methods, with participants expressing a clear preference for hands-on approaches such as role-playing and real-life scenario simulations. These findings echo prior research suggesting that conventional English teaching often lacks practical relevance, necessitating a shift toward strategies that emphasize real-world application (Li, 2024). As Liu and Zhu (2016) point out, integrating language instruction with cabin service practices can significantly enhance learners' ability to perform in authentic professional settings.

The gap between current course design and the actual language demands of the civil aviation workplace is further underscored by participants' difficulties in mastering aviation-specific terminology (Ginusti & Ariebowo, 2023). Many respondents indicated that memorizing and accurately using professional vocabulary remains a major hurdle, signaling the need for more targeted instruction in technical English. Without this foundation, students may struggle to function confidently in various on-the-job scenarios, where precise and context-appropriate language is critical. In response to these challenges, it is recommended that vocational colleges realign civil aviation English instruction with real-world operational contexts. Emphasizing interactive and experiential teaching methods can better equip students with the practical language skills needed for their future roles. Moreover, developing specialized content tailored to the communication

needs of distinct aviation positions—such as flight attendants or ground staff—can further enhance learners' readiness and confidence in using English effectively in professional settings.

Furthermore, it is recommended that a work-process-based approach be adopted in the design of civil aviation English courses. Specifically, the innovative framework can be systematically implemented to guide learning outcomes across three dimensions: knowledge ("understanding-comprehension-application", skills ("imitation-operation-expansion"), and professional values ("awareness-experience-internalization"). By integrating real-life aviation service scenarios, task-driven learning modules, and standardized workflow procedures, the course can achieve a deep integration between vocational contexts and the learning environment, thereby enhancing students' job readiness and communication competence in civil aviation settings.

However, this study has certain limitations. The sample size was relatively small and limited to one vocational college, which may affect the generalizability of the results. Future research involving a broader and more diverse population is needed to validate and refine these curriculum design suggestions.

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Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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