Diving into Language Needs: A Needs Analysis for Submarine Cadets English Workbook

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ABSTRACT: A good English language workbook for submarine school should effectively meet the specific linguistic and cognitive needs of the submarine personnel. The design of an effective workbook thus calls for in-depth needs analysis. It should cover what language skills are needed, in what context, and what learning styles and preferences the target audience has. This research applies qualitative approach in finding out some elements needed to build a workbook used in English training. The research found that submarine cadets' preferences for English teaching materials were influenced by various factors including language skill needs, teaching material format, learning methods, cultural needs, specific topics, to supporting technology facilities. Integrating these elements into the design of the workbook materials will make it more effective and attractive to them. These findings then are put as crucial inputs for creating the English workbook for the Indonesian Naval Submarine School cadets. This research aims to broaden knowledge horizon and give significant contribution in English for Specific Purpose especially English for Military.

Keywords: English, Workbook, Submarine, Training.

Introduction

Military books, training modules, and technical manuals of all kinds are mostly written in English. The ability to communicate both speaking, listening and writing using English properly and correctly, is the main capital to be able to master or crew defence equipment professionally (Sutarto, 2015). This is because the Navy is always faced with the main tool of modern weapon systems (Alutsista) where the operation and maintenance are written in English, besides that strategic information from developed countries is needed considering that some of the existing literature uses English. Proficiency in English allows soldiers to access and understand information that may be pertinent to their work.

Many military technologies and systems have English-based interfaces. A strong command of the language is required to efficiently operate and maintain these systems. Within modern conditions, the security and safety of our country need highly qualified military professionals (Khalabuzar, 2023) In addition, Baidinova (2008) stated that content-based training should correspond to the educational order and the specifics of educational programs, taking into account the actual communicative needs in various fields, such as: practical, intellectual, emotional, etc. The content of the training should meet such requirements as accessibility, high educational value, communicative and incentive orientation, authenticity and should be informative. Thus, the training should cover teaching English language to enable military personnels who would be able to communicate effectively with international Navies;

understand and follow complex orders and instructions; participate in multinational exercises and operations; and also, to negotiate and collaborate with foreign counterparts.

In planning and conducting ESP (English for Specific Purposes) courses for different purposes, including English for the Military Forces, especially the Submarine School Cadets, a thorough needs analysis is essential. The analysis then should identify the specific language skills required, the context in which these skills will be used, and the learning styles and preferences of the cadets as target audiences.

There are three purposes of need analysis according to Richards (1990) in Sabarun and Qodir (2022), they are: (a) Resulting a procedure for obtaining a wider range of input into the content, design, and implementation of a language program through involving such people as students, EFL tutors, administrators, and employers in the planning process. (b) Examining general or specific or specific language needs that can be addressed in developing goals, objectives, and content for a language program. (c) Resulting data, which serve as the basis for reviewing and evaluating an existing program. Furthermore, Sabarun and Qodir sum up that Need Analysis is a systematic process of gathering data about learners' needs. The aim is to identify major learning outcomes and needs for course or learning activity design and delivery. The needs refer to the characteristics, concerns, and possible constraints of the students. In other words, needs analysis involves conducting some type of activities with the learners in order to find out what their learning needs are, as a good understanding of learners' needs can contribute to successful course planning.

This research tries to find out the needs of the English lesson in daily training of the Submarine cadets. The purposes of the study are: (1) to get wider range of all needs as input into the content, design and implementation of the English training program, (2) to get specific language needs that will be used in the goals and objectives in the English training program, and (3) to get data for reviewing and evaluating the program that has been done, especially the needs of writing a workbook as a media to practice their English.

Method

In view of this, a complex needs analysis of an English language workbook for submarine school will require various methods. The research method used in this study is qualitative with several steps as follows:

Document Analysis

Curriculum Review: A review of the current curriculum to determine the actual language skills needed at various levels of training was done to see if it still relevant with the needs of language practice for any of assignment later after the cadets graduate.

Job Analysis: Analysis of each of the job descriptions for submarine personnel to specify the language skills required by the different roles and responsibilities that the cadets can learn at the submarine school.

Review of Existing Textbooks and Materials: A review of the existing textbooks, handouts, worksheets and any English learning material was done to determine whether available English language textbooks/materials will suffice to meet the needs of submarine cadets.

Interviews and Surveys

Interviews with instructors and students: carry out semi-structured interviews with two English language instructors and thirty submarine cadets were done with a view to establishing strengths and weaknesses in language, establishing particular language needs and problems, and get an insight into preferred learning styles.

Questionnaires

The researchers administer questionnaires to all sample of submarine cadets for data regarding

language proficiency levels, specific language needs, preferred learning methods, and attitudes towards English language learning.

Observation

Classroom Observations: Along the English classes, observation of English language classes was done to identify teaching methods and techniques, assess the effectiveness of current materials, and observe student engagement and participation.

On-the-Job Observations

Observe submarine cadets in their work practice environments to identify real-world language challenges for submarine active personnels and cadets, an identify the specific language skills needed for successful job performance.

Language Proficiency Testing

Standardized Tests: Administer standardized English language tests (TOEFL Prediction) to assess the overall language proficiency of submarine personnel.

Diagnostic Tests: Develop and administer diagnostic tests to identify specific language weaknesses (e.g., grammar, vocabulary, reading, writing, speaking, listening).

Data Analysis and Interpretation

Once data is collected from various sources, it was then analysed to identify patterns and trends.

Key areas to focus on include:

1. Language Skills: identifying the specific language skills that need to be addressed in the workbook, such as vocabulary, grammar, reading, writing, listening, and speaking.
2. Contextual Factors: to consider the unique context of submarine operations, such as limited exposure to English, time constraints, and stressful work environments.
3. Learner Needs and Preferences: identifying the learning styles and preferences of submarine personnel to tailor the workbook accordingly.
4. By carefully analysing the data collected through these methods, it is possible to develop an English language workbook that effectively addresses the specific needs of submarine cadets, leading to improved language proficiency and enhanced performance.

Findings

Based on the result of the close study, the unique context of submarine operations poses the following specific challenges for English language learning for the cadets:

Limited exposure to English.

Since the submariners usually work in an environment that is isolated with limited opportunities to practice the English language; The cadets live in the dormitory 5 days in a week, and most of the subjects are in Indonesian language. Their communication with the school staff and instructors barely using English. Only some of the submarine school instructors can use English and has willingness to help them with their English.

> "We rarely use our English, except when we are in English class" (participant no.2, personal communication, October 15th 2024)

Time constraints due to the demanding nature of the service in submarines.

Cadets are scheduled to attend many physical activities and do service in the naval base; In addition, they are also scheduled to have on job training several times in a week this creates more limit to their English learning.

> "We prefer to attend your English classes but these weeks we have Latek (technical practice)." (participant no.10, personal communication, October 15th 2024)

Stressful work environment that influences language learning

As the cadets live in the school which applies common military rules and specific ones tailored for the submarine schools, it gives more pressured environment.

"As we live 24 hours in dormitory, we are exposed to disciplinary punishments. We seldom have time to use our English." (participant no.8, personal communication, October 15th 2024)

Needs and Preferences

As for the learner needs and preference, the cadets described their learning needs as a light and fun one, while a full lecturing method wasn't embraced, the absence of English instructor in some events has also been rising the need of a workbook which can help them to practice independently.

As it shown in the Preferred Learning Method Chart, 60% of the respondents prefer to watch videos as it is considered light and fun, and there is 20% of the respondents prefer playing online or offline games. Moreover, a respondent gives a feedback on this question.

"I like being in the English class because the teachers often use fun learning games and they are more fun than our physical training." (participant no.15, personal communication, October 15th 2024)
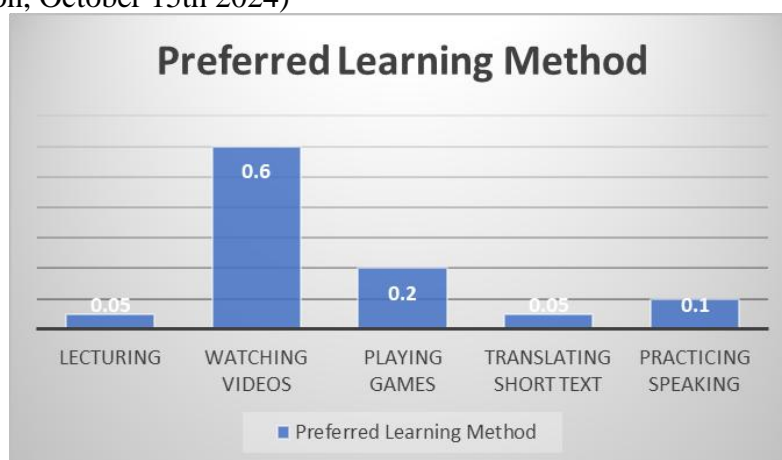

Fig. 1 Preferred Learning Method

Using TOEFL prediction application, the language proficiency level showed that about three quarter of the cadets got score below 400 as can be seen below. It means the class and the workbook should accommodate them to get better score at the end of the study term.
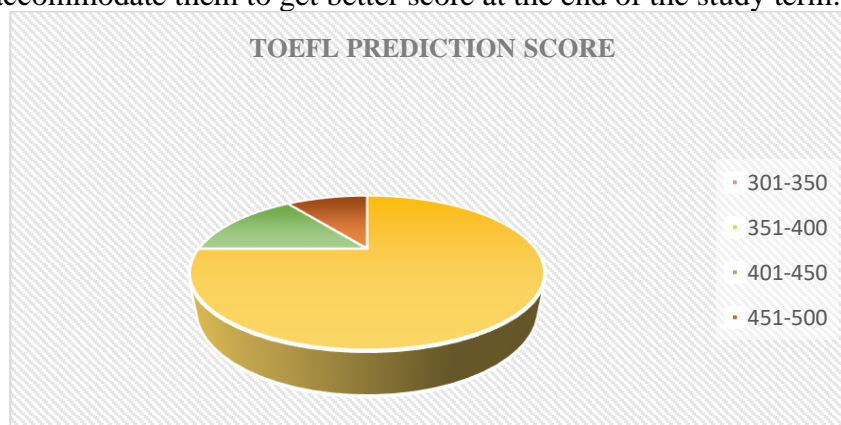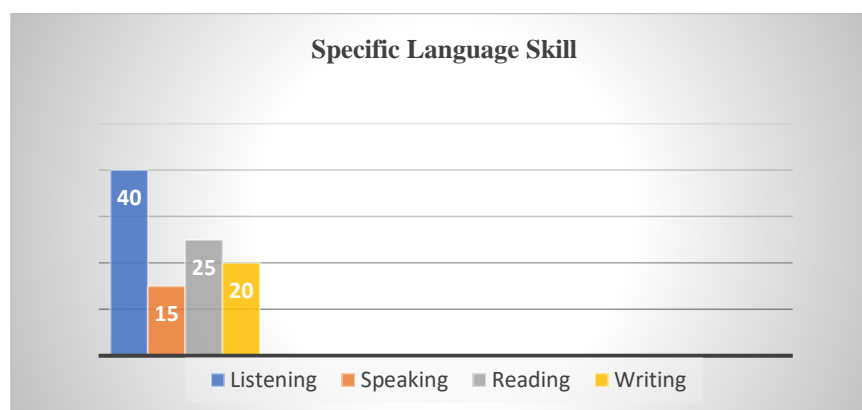

Fig 2 TOEFL Prediction Score

Fig. 3 Specific Language Skills

After they graduate, they will be stationed in several submarine ships and they need to be able to understand parts of their ships as written in manual books which are in English. When they are abroad, they will meet their colleagues from all over the world and they have to communicate using English. As it is shown in Chart 3, the cadets need the four language skills, listening, speaking, reading and writing. Most of them choose listening as the skill that needed most, then sequentially reading, writing and speaking.
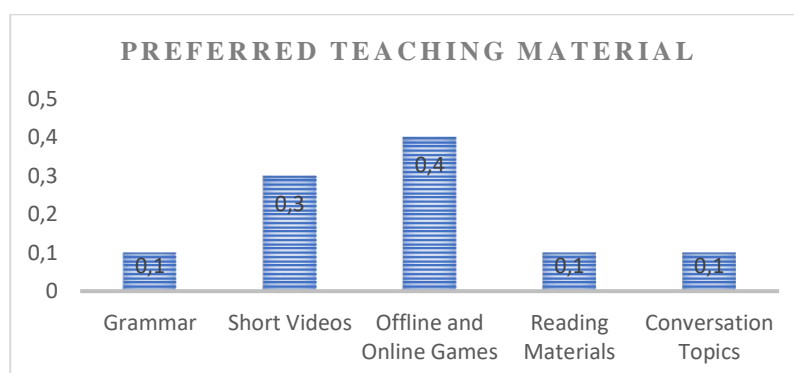

Fig. 4 Preferred Teaching Material

In the classrooms, as the cadets prefer a light and fun method, to accommodate the language skills needed, some materials preferred are sequentially as follow: Offline and online games, short videos, grammar, reading and conversation topics.

Fig. 5 Cultural Topics Needs

The cadets come from various regions in Indonesia, each of them has their own culture values. The need to put culture as one of the topics included in the workbook emerges as in the work they will do later, they will have to work as a unit, regardless the culture values they bring from home. By putting culture topics, the cadets may learn to comprehend others value, not

only Indonesian culture as the most to be discussed but also the western and Asian culture as well,
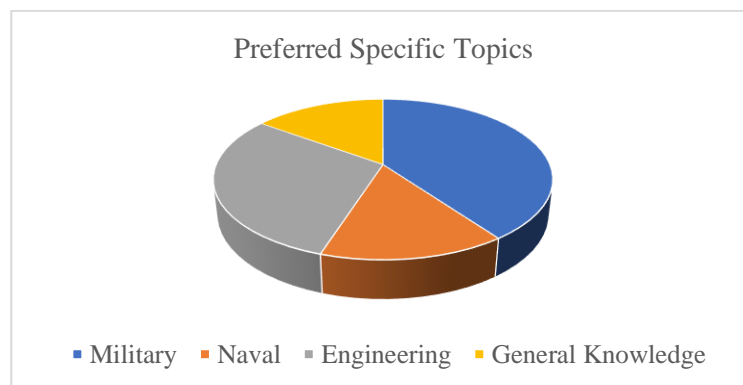

Fig. 6 Preferred Specific Topics

As the naval submarine school is classified into vocational navy school, the school follows rules in the navy. There are specific topics should be included in the workbook, sequentially they are military topic, naval, engineering and general knowledge.
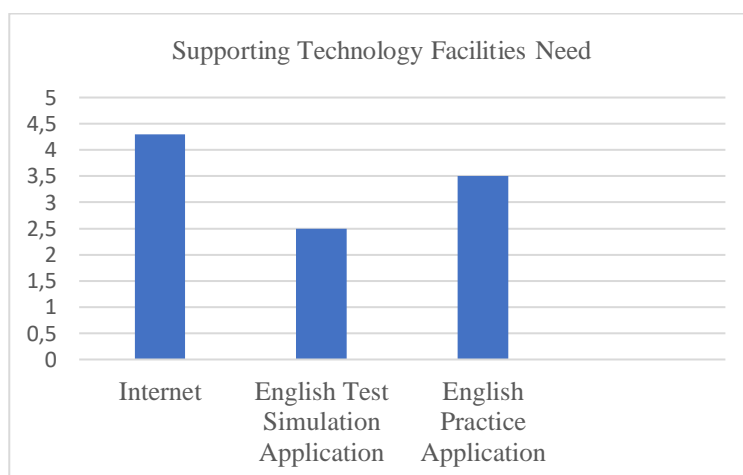

Fig.7 Supporting Technology Facilities Need

In the era of modern technology, some facilities are needed in the English for Submarine classroom. The need of internet appears to be the most needed, and then the English Practice Application and the last is the English Test Simulation Application.

Discussion

In developing an effective English language workbook for submarine school personnel, it is essential to consider learners' specific needs, learning styles, and operational contexts. Submarine cadets typically exhibit a preference for hands-on, task-oriented learning approaches, which align with the communicative language teaching (CLT) paradigm. As Suryatiningsih (2017) emphasizes, the communicative approach focuses on language functions and real-world applicability rather than isolated grammar and vocabulary, making it particularly suitable for military settings where practical language use is critical. Consequently, the workbook should feature exercises and activities that mirror authentic scenarios encountered in submarine operations. Furthermore, the material must be clearly structured and conducive to self-directed learning, enabling learners to study independently and efficiently. Desi (2019) further underscores that needs analysis plays a pivotal role in instructional material

development, serving as a bridge between the expectations of instructors and curriculum designers and the actual requirements of learners.

A well-developed workbook should be grounded in such an analysis to ensure its relevance and effectiveness. Based on this framework, the English workbook should include components such as vocabulary development—focusing on naval terminology and idiomatic expressions—grammar and syntax exercises tailored to operational communication, reading texts covering submarine operations and international relations, writing tasks including reports and emails, listening comprehension activities using authentic audio sources, and speaking tasks that promote real-life communication through role-plays and discussions. By aligning the workbook's content with both theoretical insights and the learners' operational needs, the material can significantly enhance the communicative competence of future submarine officers.

Conclusion

The findings of this study highlight the unique challenges that submarine cadets face in learning English due to their limited exposure, time constraints, and the stressful environment of their training. The study emphasizes the importance of designing an English language learning program that is both engaging and practical, catering to their specific needs and preferences.

Cadets benefit most from interactive and engaging learning methods, such as watching videos, playing games, and using hands-on exercises that mirror real-world naval scenarios. Their preference for self-directed learning also indicates the necessity of a well-structured workbook that facilitates independent study. Additionally, given their future responsibilities aboard submarines, the emphasis on listening skills and technical vocabulary is crucial to their operational effectiveness.

The research underscores that incorporating cultural understanding into the curriculum can help cadets collaborate effectively in diverse environments. Furthermore, integrating technology, such as internet-based resources and English practice applications, can enhance learning accessibility and efficiency.

Ultimately, to bridge the identified gaps in English proficiency, the development of a comprehensive English language workbook tailored to submarine operations is essential. This workbook should align with vocational navy school requirements, ensuring that it provides relevant military, naval, and engineering content. By incorporating a communicative and task-based approach, the workbook can significantly improve the cadets' language skills, preparing them for their future roles in the submarine fleet.

The findings of this study align with previous research, reinforcing the idea that effective language learning materials must be based on thorough needs analysis. Addressing these needs will not only enhance cadets' language proficiency but also contribute to their overall success in naval operations and international collaborations.

To resume, the findings highlight the importance of aligning language training materials with the cadets' professional context and learning preferences, ensuring they are better equipped to meet the demands of their roles within the submarine force. The recommendations from this study provide a foundation for developing a workbook that bridges the gap between theoretical language training and practical operational needs, enhancing both individual performance and overall mission readiness.

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