

Analysis of Needs for Project-Based Interactive Media Development in *English for Specific Purpose* (ESP) for Students' Speaking Ability



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ABSTRACT: Speaking ability in English is an essential skill for Maritime Vocational High School students to face challenges in the global maritime industry. *English for Specific Purposes* (ESP) learning that is designed contextually and based on vocational needs is one solution to improve this competence. This study aims to analyze the initial needs for the development of interactive media based on *projects* on ESP for the speaking skills of Maritime Vocational High School students. This study uses a qualitative descriptive approach. The data collection instruments for this study are in the form of teacher and student needs analysis questionnaires, and the average value of speaking skills. The results of the study indicate that teachers still rely on textbooks, with the use of technology-based interactive media that is still limited. Teachers have the initiative to develop teaching materials, but they are still simple and not optimal. Meanwhile, the results of the study of students' speaking skills are relatively low, showing that the average value with a percentage of achievement is 52.53%. 80% of students feel that the learning media that teachers have used so far is not interesting as a medium and source of learning English for nautical. 89.4 % of students like other learning media such as interactive videos or digital platforms. 96 % of students are interested in learning with project-based interactive media. Thus, it is necessary to develop interactive media or digital platforms project-based. A more effective and applicable ESP learning strategy in accordance with the demands of the world of work.

KEYWORDS: Interactive Media, ESP, Project-based, Vocational High School Students, Teachers

I. INTRODUCTION

In the era of globalization, English language skills have become an essential skill for Vocational High School (SMK) graduates, especially in the maritime sector. With the demands of the business and industrial world, graduates who are able to communicate actively, have a spirit of collaboration/cooperation, and are creative in creating technological products/projects need to be taught in schools. With these provisions, Students are expected to be able to understand the language English major and capable communicate in his/her field or major.

Center of Excellence school curriculum comes from a partnership program between SMK PK and the business world, industry and work world (DUDIKA) carried out with the 8+i *link and match program*. Miller Melvin D (Melvin, 1984) in the book *Philosophy and Principles of Vocational Education*, said that one of the philosophies and principles of vocational education is link and match. A vocational education institution must be based on a link and match with the Business World, Industry and Work World (DUDIKA). According to Miller Melvin D (1984) again emphasized the Three in Tub of Vocational Education concept, that in developing vocational education must not be separated from the philosophy, principles, and policies of vocational education development.

One solution that can be implemented is *English for Specific Purposes learning* which is specifically designed to meet communication needs in the maritime sector. ESP aims to develop students' professional communication skills in English according to their professional field. Teaching should be linked to the student's specific specialization. ESP is a special program designed to develop the communicative use of English in specific areas of science, work, or technology. ESP is an approach to language learning that is based on learner needs meaning that all content and methods are based on the needs of the students (Hutchinson and Waters (1987). In line with these theories, Richards (2001) stated that ESP is a language teaching approach that is more relevant to learners' needs. This aims to accelerate students' understanding of learning with a different approach from General English. Basturkmen (2008) added that ESP has functioned to help language learners master language features and develop the required competencies. From the theories above, it can be concluded that ESP is an approach to language learning designed to meet the specific needs of learners in a particular discipline or profession.

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However, in its implementation, *English For Specific Purposes learning* in vocational schools still faces several obstacles, such as teaching methods that are less applicable and minimal student involvement in active communication practices. To achieve these learning objectives, Project-Based Learning (PjBL) is one of the teaching strategies that can be used to provide students with an understanding of the learning material in *English for Specific Purpose*. Project-Based Learning is a learning method that emphasizes projects or tasks that are similar to real-world situations. In this context, students not only gain knowledge but also develop practical skills such as problem solving, creativity, teamwork, and communication. On the other hand, web applications and platforms have become effective means of providing access to various educational resources and interactive tools that can enrich the learning experience (Rusmiyanto et al., 2023). According to Costa et al. (2007 cited by Fauziah et al., 2020) projectbased learning teaches students to learn communication skills in small groups, identify problems, find relevant information, and develop presentation skills from project work given by teachers or lecturers.

II. METHODS

This study uses a descriptive method with a qualitative approach. The descriptive method is a method used to describe or analyze a research result but is not used to make broader conclusions (Sugiyono, 2009)

Data were collected through teacher needs analysis interview sheets, student needs analysis questionnaires, and student observations through test results, as well as teacher observations. The analysis was conducted to identify ESP learning needs that are in accordance with the demands of the world of work and to explore the effectiveness of PjBL implementation in improving students' speaking skills. One of the main characteristics of qualitative research is that it lies in the focus of the research, namely an intensive study of a particular situation, in the form of a case or phenomenon (Gall et al. 2003). The research was conducted at SMK Negeri 10 Padang, with the research subjects being class XI Nautika students. totaling 84 students and 4 English teachers.

III. RESULT AND DISCUSSION RESULT

Based on the analysis of teacher needs during observations during interviews, the following data was obtained.

Teacher Needs Results

Analysis of teacher needs for learning resources and learning media is carried out through an interview process with the following interview guidelines:

1. What learning media are used in class XI Nautika at SMK Negeri 10 Padang in learning *English For Specific Purpose*?
2. In your opinion, what are the advantages and disadvantages of the teaching media currently used?
3. Have you ever developed teaching media independently in learning?
4. What learning models do you use in learning English for Specific Purposes?
5. Have you ever used interactive video media?
6. What do you think about interactive media?
7. How are the students' abilities with the learning system that you have implemented?
8. Have you ever measured students' speaking abilities through PjBL?
9. How do you measure students' speaking abilities?
10. In your opinion, what are the students' speaking abilities at the moment?

Table 1. Results of Teacher Needs Analysis During Observation

No	Question Analysis
1	Teachers still rely on textbooks and LKS, and rarely use technology-based interactive media such as Canva and others.
2	More interesting and interactive teaching materials are needed
3	Teachers already have the initiative to develop teaching materials, but they are still in a simple form.
4	Teachers have used interesting learning models but they are not yet optimal
5	Need for introduction and training in the use of interactive media
6	Teachers have a positive view of interactive media
7	Learning needs to be more innovative and interesting so that all students are motivated to participate in learning.
8	Teachers have tried to measure speaking ability, but it is still limited
9	Teachers use presentation or practice methods in front of the class
10	In general, students' speaking ability is still low and they tend to be afraid or embarrassed when asked to speak English.

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Student Needs Analysis

The results of the distribution of pre-research questionnaires to 84 class XI Nautika students, obtained the following results:

Table 2. Student Needs Analysis Questionnaire

No	Question	Frequency	Percentage		
		Yes	No	Yes	No
1	Have you ever used interactive media for learning?	10	74	8	92
2	Do you think interactive media is sufficient for learning?	60	24	80	20
3	Do you like English lessons?	40	44	47	53
4	What learning media do you prefer? Digital / Textbooks	75	9	89.4	10.6
5	Are you interested in learning English using a projectbased learning model?	80	4	96	4
6	Are you having difficulty understanding the material through the teaching media and methods that your teacher has provided so far?	75	9	85	15
7	When teaching English, have you ever used interactive media in the form of digital platforms or similar?	10	74	10.6	89.4
8	Do you like learning with media?	80	4	94	6
9	Do you want to try learning using interactive media?	80	4	94	6
10	Do you need teaching media and learning models that can be used to learn English language concepts, especially speaking, more easily and interestingly?	82	2	98	2

Table 3. Results of Student Needs Analysis

No	Question Analysis
1	8% of students have used interactive media for independent learning
2	80% of students feel that the learning media they use is not sufficient as a source for learning English for nautical, and 20% feel that it is sufficient.
3	47% of students like English lessons, while 53% don't like them because they think they are difficult.
4	89.4% of students prefer interactive video learning media or digital platforms, but 10.6% still prefer textbook media.
5	96% of students are interested in learning with project-based learning models, while 4% are not interested.
6	85% of students have difficulty in understanding the material through teaching media and methods delivered by teachers, while 15% do not experience difficulty in understanding the material through teaching media and methods delivered by teachers.
7	10.6% of students answered that teachers had used interactive media, while 89.4% of students answered that teachers had never used electronic modules.
8	94% of students prefer learning with media, and 6% do not like learning with media.
9	94% of students want to try learning using interactive media, while 6% of students do not want to try learning using electronic modules.
10	98% of students need teaching media and learning models that are easier and more interesting, 2% of students do not need them.

Speaking Skills Score Results

To find out the student categories in speaking skills, it can be presented in Table 3.

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Table 4. Average Percentage Value of Students' Speaking Skills per Class

No	Class	Average
1	XI NKN	53.60
2	XI NKPI A	52.50
3	XI NKPI B	51.50
Average		52.53

DISCUSSION TEACHER NEEDS ANALYSIS

Based on the results of interviews with English teachers, several things were obtained, namely that so far teachers have developed teaching media independently, but not optimally. Finally, teachers use more teacher books and student books as media. This is due to the limited availability of internet in schools. *English for Specific Purpose* learning has not used interactive media as a motivation for student learning. *English for Specific Purpose* learning that is implemented does not activate students enough, causing students to be passive in learning, and so far ESP learning has only focused on the knowledge aspect, which causes students' speaking skills to not be optimal. The solution to this is that learning must be packaged in a more interesting media and learning strategy so that it can develop students' speaking skills.

There are several previous studies on PjBL in teaching, such as those conducted by (Kristianto, I & Harendita, M, 2022; Andanty, 2020; Christianto, 2019; Indrasari, 2016) the results of these studies indicate that PjBL is an effective learning strategy in ESP learning, because in the learning process students learn both theory and practice. Therefore, what is different from previous studies, the author will examine the Needs Interactive Media Development Based on Project In ESP learning to improve students' **speaking skills**. While the media developed is interactive video media.

Analysis of student needs

From the results of the questionnaire analysis of student needs, it can be seen that many students like to learn using interactive media based on Projects. So far, the media in ESP learning still uses book media, even then it is only in the form of photocopies of modules lent by teachers during learning and is not yet fully sufficient media for learning, so students feel that book media or modules alone are difficult to understand. Students need other learning media to support learning activities and need learning resources that can be understood independently with the Project Based Learning learning model developed with interactive Video, which is presented in electronic format, where each learning activity in it is connected with links as navigation that makes students interactive with the program equipped with video, animation and audio presentations to enrich the learning experience (Gunadarma, 2011).

Meanwhile, the Analysis of Learning Needs for *English for Specific Purposes (ESP)* in Maritime Vocational High Schools, based on the results of interviews and questionnaires conducted on students and teachers, found that the majority of Maritime Vocational High School students have difficulty in speaking skills in English. This difficulty is caused by several factors, including: a) Limited maritime technical vocabulary - Many students are not yet familiar with specific terms in English used in the maritime industry; b) Lack of oral communication practice - English learning in vocational high schools is still dominated by conventional grammar-focused methods, so that students do not get the opportunity to speak in real contexts; c) Lack of experiential learning methods - Teachers tend to use lecture methods and written exercises, without implementing a project-based approach that allows students to practice communication in real work situations. According to Hutchinson & Waters (1987), ESP must be designed based on the specific needs of the field of work that is the goal of learning. This is in line with the findings of this study which show that students need ESP materials that are more contextual and applicable in accordance with the maritime work environment.

Students' Speaking Skills

The results of the analysis of the speaking skills of class XI Nautika students of SMK Negeri 10 Padang show that the average percentage of students' speaking skills in class XI NKN has the highest average speaking skills, which is 53.60. Meanwhile, class XI NKPI A obtained an average of 52.50, which is slightly lower than XI NKN. While class XI NKPI B recorded the lowest average score, which is 51.50. If calculated as a whole, the average speaking skills of the three classes are 52.53. This value shows that students' speaking skills are in the range of 50% and above, which means that most students have the ability to speak English, but still need further improvement. Factors that can influence the difference in these values include learning media, teaching methods, the level of student participation in learning, and a learning environment that supports English speaking practice. To improve students' speaking skills, more interactive learning strategies are needed, such as the use of interactive media, group discussions, and presentations in English so that students are more confident in speaking.

V. CONCLUSIONS

This study analyzes the need for developing project-based interactive media in learning *English for Specific Purposes (ESP)* to improve *speaking skills*. Maritime Vocational School students. The results of the study can be concluded that current ESP learning

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is still less effective because the methods and media used are more based on textbooks and written exercises, without providing sufficient speaking experience in a maritime context.

The use of project-based interactive media has been proven to increase student engagement in learning, provide contextual experiences, and increase their motivation in developing English speaking skills. However, the use of interactive media and the implementation of PjBL still face obstacles such as limited facilities, lack of training for teachers, and time constraints in the curriculum.

As a recommendation, it is necessary to develop project-based ESP modules, training for teachers, collaboration with the maritime industry, and the use of technology such as interactive media and learning videos. With this strategy, it is hoped that Maritime Vocational School graduates can have better English communication skills that are in accordance with industry needs.

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