ENHANCING ESP TEACHING FOR COMPUTER AND NETWORK ENGINEERING STUDENTS THROUGH MULTIMEDIA

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Abstract: This article discusses the application of short videos and pictures in teaching ESP procedure texts in computer and network engineering majors. This research uses a qualitative method with a case study design to explore the integration of video and pictures in ESP teaching, the challenges teachers face in integrating videos and pictures in ESP teaching, and how teachers overcome these challenges. The participants of this study consisted of one English teacher in computer and network engineering class who was selected by purposive sampling. The research was conducted at SMK Mahardika Malang and involved English teachers from the computer and network engineering department. Data collection methods included observation and interviews with teachers, focusing on the procedures for integrating short videos and pictures, the challenges faced, and solutions to overcome these challenges. The findings reveal that there are several activities in the classroom, namely teacher activities, student activities, and the learning and teaching process. Teachers face three challenges. The first is time constraints. To overcome this challenge, teachers must use pictures and short videos wisely and adjust them to the time available in the lesson plan. The second is the mismatch of learning material sources. The solution to this challenge is to use effective multimedia such as the Internet and YouTube. The third is students' low motivation to learn English and write procedural texts. The solution to this challenge is for teachers to approach students emotionally, consult with their parents, and provide project-based learning strategies using English. This research provides valuable insights for ESP education, emphasizing the importance of adapting content to industry needs, addressing motivation issues, and effectively using multimedia elements.

Keywords: English for Specific Purpose (ESP); Short videos and pictures; Procedure text.

INTRODUCTION
In education, English for specific purposes (ESP) continues to develop. Teaching English in an academic or professional environment is more demanding than traditional methods (Ain et al., 2023; Chaovanapricha & Chaturongakul, 2020; Khalil & Kholofelo Semono-Eke, 2020; Saienko et al., 2020; Sijino & Aristo, 2019; Simkova et al., 2021). Thus, this is where ESP comes in (Rohani & Suyono, 2021). ESP is different from learning English in general (Al Baekani et al., 2023). The main difference between ESP and general English is that ESP teaches English to meet students’ needs in specific disciplines other than arts and languages (Kovâčiková, Elena, 2020). In other words, students learn English according to their needs for future employment. It means that learning English is according to the major the student takes.
For example, computer and network engineering students will study English in computers and networks or English according to that field. In ESP teaching, learning methods are increasingly sophisticated and advanced. Technology and education today provide teachers with teaching facilities with many modern tools (Fay & Matias, 2019). In other words, with the development of ESP, teaching methods have become more advanced.

Furthermore, as time progresses, teachers must be able to find innovative learning methods and strategies that can help convey information in learning based on current developments. Learning trends in the 21st century have suggested the involvement of technology in education, such as using videos (Khaliq & Nasution, 2019). Technology can facilitate the learning process for students and teachers. It can also help increase student interest in the learning process. Given the importance of technology in our daily lives, the need for professionals with expertise in computer and network engineering is increasing. Therefore, educators are changing their teaching methods to meet these demands and arouse students' interest in ESP subjects. Using multimedia elements such as videos and pictures can help students understand English learning in computer and network engineering classes more easily. Furthermore, Aminah et al., (2018) stated that technology, especially videos, can be used as a way for teachers to teach writing to students more tangibly. Thus, innovative learning strategies can simplify the learning process.

One use of technology in teaching is using videos and pictures. Currently, the use of videos in learning is no longer strange. Using videos in education makes it easier for teachers to convey material more interestingly and effectively (Winarto et al., 2020). Teachers can provide the learning materials according to students' needs. In addition, implementing videos can help students and teachers discuss topics in class (Sari, 2022). Integrating video in the classroom involves several stages: needs analyst, course designer, material provider, collaborator, discourse analyst, evaluator, and classroom teacher (Woodrow, 2018).

Furthermore, by integrating multimedia such as videos and pictures in teaching ESP, there are several activities, such as teacher activities, student activities, and the teaching and learning process, as well as the preparation of media and materials Aminah et al., (2018). Teachers play an important role in using videos in the classroom (Santos Espino et al., 2020). In this case, the teacher is the course designer. Before the teacher teaches, the teacher analyzes the needs of students and prepares learning materials relevant to the students' majors. In addition, the teacher also provides feedback during teaching. So, in this case, the teacher is divided into several activities in the classroom.

Furthermore, teachers consider using videos to improve the teaching and learning process and increase teacher effectiveness in teaching (Simoncini et al., 2021). Moreover, teachers can use videos to teach students writing in ESP classes. ESP aims to motivate students to learn English according to their needs (Tymbay, 2022). Papadima-Sophocleous et al., (2019) argue that students need courses to meet specific needs that are intended to meet society's future demands. Therefore, students must learn four basic skills in English. Four basic skills must be taught: listening, speaking, reading, and writing (Azizah Ria Kusrini & Rizki Amalia, 2021). All skills students will learn must be adjusted to the student's needs. In other words, learning English depends on the major the student takes.

However, students currently need help in writing and creating texts. Students also find it challenging to determine the purpose of the text they write apart from providing information to the reader from the contents of the text (Işık-Taş et al., 2019). In other words, choosing the purpose of the text is a challenge for students. Teachers face challenges when teaching ESP using multimedia, such as designing the syllabus and the program development process, limited time, lack of ESP teacher education and lack of knowledge of the subject matter, lack of a strong theoretical foundation, such as specialized books to support ESP teaching, and students' motivation and lack of students' vocabulary (Işık-Taş et al., 2019). Then, a lack of student motivation becomes an obstacle to writing and learning English (Nuraini et al., 2023; Shahat et al., 2022). Thus, delivering video material will help teachers increase students' motivation and interest in writing. In this case, integrating videos and pictures makes it easier for students to understand procedural texts. They can increase understanding and prepare students to face the challenges they will face in the world of work in the future.

In addition, the relationship between language skills and the ability to operate computers and networks is closely related. In computers, almost all use English. Therefore, students majoring in computer and network engineering are required to master English. However, at SMK Mahardika...
Malang, computer and network engineering students have difficulty understanding procedure texts and how to write procedure texts when explained through written texts such as books. Students feel bored during learning, causing low levels of understanding and a lack of motivation in learning. Therefore, innovative learning is needed to overcome this problem, such as integrating visual media such as videos and pictures, which can provide a clearer and more interesting explanation of procedure text and make it easier for students to understand the material being taught.

Using multimedia resources, teachers can bridge the knowledge gap between theory and practice and provide students with highly engaging English teaching and learning about procedural texts in computer and network engineering classes with comprehensive education. Therefore, in ESP teaching, it is important to deliver appropriate materials through technology, such as videos and movies, to help teachers and students discuss and learn about the culture and improve their communication skills Radosavlevikj & Hajrullai, (2019). In other words, learning ESP, especially in computer and network engineering majors, can utilize existing multimedia, such as videos.

In addition, research on using videos to teach English has been carried out in various countries. Aminah et al., (2018) explore the benefits of using videos in learning. The study found that most students were interested in watching the video and that it could help them find ideas for writing. Moreover, Moreno & Escobar, (2021) also researched the use of video descriptions in collaborative writing projects for students. This research explores video description tasks within description writing skills. The study found that students were highly motivated to write English and had better results in the final exam. Furthermore, Radosavlevikj & Hajrullai, (2019) also researched the use of videos in stimulating students' critical thinking skills in ESP classes. Students are very motivated to learn English using videos. The findings of this study revealed that teaching ESP using video has good benefits for teachers and students; using appropriate videos makes students more engaged and communicative and makes them more interesting.

After reviewing several empirical studies, most studies show that using videos in learning focuses on benefits, projects and increases student motivation. However, limited research focuses on integrating short videos and pictures to teach ESP procedural texts in computer and network engineering majors, the challenges in integrating short videos and pictures, and how the teacher solves their challenges. Therefore, further research needs to be conducted to identify how to integrate short videos and pictures in teaching procedural texts in ESP classes. In addition to exploring how teacher integrate videos and pictures in ESP teaching, our research aims to explore what challenges teacher face and how to overcome them. Thus, this research explores teacher strategies for teaching ESP by teaching procedure texts in class. The results of this research will likely provide insight for other teachers to integrate videos and pictures in teaching ESP, know the challenges in integrating video and pictures, overcome the challenges, and improve skills and quality in learning. It will help teachers teach procedural texts and make conveying complex procedure text information in English easier.

Therefore, this research was conducted to further analysis by formulating the following questions: (1.) What is the procedure for integrating videos and pictures in teaching procedure text in ESP class? (2.) What are the challenges in integrating videos and pictures in teaching ESP? (3.) How does the teacher solve their challenges integrating videos and pictures in ESP?

**METHOD**

This research method was designed to explore the integration of short videos and pictures in learning ESP procedural texts for Computer and Network Engineering students at SMK Mahardika, Malang. This research used a qualitative research method with a case study design. A qualitative case study approach is very suitable for this research because it allows researchers to explore and deeply understand the uniqueness and complexity of integrating video and images in teaching procedural texts in the Computer and Network Engineering department at SMK Mahardika, Malang. Furthermore, this research was conducted at a vocational high school, SMK Mahardika Malang, in East Java, Indonesia. The primary respondent was an English teacher in computer and network engineering. Participants in this research are class A students. The researcher selected this teacher purposively using purposive sampling techniques. The researcher chose the teacher based on the criteria. So, the teacher was chosen because of the following criteria:

First, the teacher is selected based on teaching experience, who has implemented videos and pictures to teach procedural texts in ESP classes.
Second, the researcher chose a teacher who had been teaching for approximately three years. This research took place in December 2023. The instruments used for data collection were observation and interviews with teacher.

Observation and interview instruments were used to explore teacher information on integrating videos and pictures in learning text procedures, focusing on methods or techniques, the type of content used, and the extent to which the content is related to ESP material. It also explores the challenges teacher face when integrating videos and pictures in learning text procedures and how teacher overcome these problems.

Furthermore, the data collection procedure begins with the pre-research stage, which includes identifying respondents and preparing observation and interview instruments. Observations were made during multimedia learning, such as videos and pictures in teaching text procedures. Interviews with teacher were conducted after several learning sessions. The collected data was then analyzed carefully to gain a holistic and in-depth understanding of integrating videos and pictures in learning ESP text procedures for Computer and Network Engineering students at SMK Mahardika, Malang.

The data analysis process is divided into three steps: data condensation, data display, and drawing and verifying conclusions (Miles et al., 2014). The first step is data condensation. In this step, researchers collect data from interviews and observation results. The researcher wrote the results of the interview into a transcript. Furthermore, the researcher categorized the interview results on how teacher integrated videos and pictures in learning text procedures, what challenges teacher faced when integrating videos and pictures in learning text procedures, and how teacher overcame these problems. In the second step, namely data display, the researcher summarizes the general results of the interview and classifies them into themes and sub-themes. In the third step, namely drawing and verifying conclusions, the researcher makes conclusions from data interpretation. In this case, the researcher selects, identifies, and focuses the data by referring to the research problem formulation. The researcher concludes that the data is displayed.

**RESULTS AND DISCUSSION**

*Use of videos and pictures in teaching writing procedural texts in ESP classes*

Based on the observation result regarding the use of videos and pictures in teaching writing procedural texts, there are several activities in the classroom. Table 1 revealed the activities of teacher and student, the learning and teaching processes, and the materials and media used.

<table>
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<th>Table 1. Activities in the classroom</th>
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**Teacher activity**

During the lesson, the teacher has prepared learning materials. The first thing the teacher does is introduce the learning topic to students. Therefore, the teacher stimulates the students by randomly displaying pictures of the procedural text and words that match the pictures. Then, the teacher instructs students to choose words that match the pictures.

The next step is for the teacher to provide video examples of procedural texts, such as installing Windows, repairing a printer, and maintaining computer hardware. Next, students are asked to find verbs in the video. Moreover, the teacher explains the procedure text, such as the nature of the procedure text, its generic structure, and the characteristics of the language used. During learning, the teacher always motivates students to ask questions about the material that has been provided. After the teacher plays the video and explains, the teacher instructs students to discuss with other students and asks the group to create a procedural text. Furthermore, the teacher asked each group to present it in front of the class. During the learning process, the teacher always provides feedback to students and helps students when writing procedural texts.

**Student activity**

In this section, before learning, students remember the previous lesson. Students answer the teacher’s
questions during learning, but not all of them. When the teacher explains, students listen carefully to the teacher's explanation. Students are active during learning. However, when writing descriptive text, students still need help in composing the text. Most of the students' difficulties lie in grammar and vocabulary.

Learning and teaching process
The learning and teaching process consists of several stages. These stages are pre-teaching, watching activities, and after-watching. First, in pre-teaching activities, the teacher prepares learning media. The teacher chooses media that makes it easier for students to understand learning material. The media is in the form of short videos and pictures. The video is tailored to the student's ability to understand it.

Second, namely, viewing activities. After the teacher introduces the material and provides pictures, the teacher plays the video and repeats it several times until the students understand the content of the video. During viewing activities, the teacher and students also discuss using vocabulary and visualization, such as using tools and materials in the video.

Furthermore, in the final stage, after watching, the teacher asks what difficulties were in understanding the video, such as new vocabulary or using grammar in sentences. Furthermore, the teacher provides feedback, such as answering students' questions and providing re-explanations using vocabulary that is easy to understand. After watching, students are also asked to discuss creating a procedure text with their friends.

Material
The material used by the teacher when teaching is appropriate to the computer and network engineering department, such as installing windows and repairing the printer. Based on the department, Mahardika Malang Vocational School teachers use the material to create their teaching modules. Schools and teachers align the curriculum with current industry needs. In this way, it becomes easier for students to understand and suit the needs of future work.

Media
The findings of this research indicate that the teacher at SMK Malang have successfully integrated short videos and pictures effectively in teaching ESP procedural texts. They organize multimedia content that supports procedural texts clearly and provide visual illustrations to clarify student understanding. The use of this technology not only increases student engagement but also creates a more engaging learning experience. Thus, short videos and pictures attract students' attention more in the learning process.

Challenges teacher face when integrating videos and pictures in teaching procedure texts in ESP classes.
Based on the results of interviews, the teacher has several challenges in integrating videos and images in teaching procedural texts in the computer and network engineering department. Figure 1 presents the teacher challenges when integrating videos and pictures in teaching procedural texts in computer and network engineering. This information can be divided into three challenging aspects: limited time, incompatibility of learning material sources, and lack of student motivation. The biggest challenge faced by the teacher is the incompatibility of learning materials. The teacher mentioned that many English books use general English, and there are still a few English books that are made specifically for computer and network engineering majors.

Figure 1. Teacher challenges
The challenges faced by teacher related to integrating short videos and pictures are limited time. As the results of the interview expressed by the teacher:

"The problem is that when teaching, there isn't enough time to play videos and give assignments to students, mbak." (T)

The next challenge is the incompatibility of learning material sources. The following is the
teacher’s explanation of the source of learning material from the interview results:

"Currently, many English books at the vocational school level use English for the general public, mbak. I am trying to find English books specifically for computer and network engineering but there are still few. Due to the lack of book sources that provide procedural text material in the computer and networking department, I have to create my video material content, mbak, and edit it for quite a long time. Sometimes I also have limitations in finding suitable English language material." (T)

The next challenge is the lack of student motivation to learn English and write procedural texts. From the results of the interview, the teacher revealed:

"Students sometimes seem lazy in class when it comes to learning English, especially when writing procedure texts, mbak. Students still lack a lot of English vocabulary." Therefore, I also need help adapting video and image content to students' needs and finding relevant material.” (T)

Solutions to overcome challenges in integrating short videos and pictures in teaching procedural texts in ESP classes

The teacher overcomes time constraints by planning the use of short videos and pictures wisely and adjusting them to the time available in the lesson plan. In addition, teacher always check and ensure that the integrated content not only supports learning objectives but is also by the curriculum. Furthermore, teacher also try to develop several shared teaching materials that can be accessed by ESP teacher widely to facilitate the search for relevant materials and make it more time efficient.

"Even though I have little time, I try to use my time wisely, sis, and choose the focus of the video according to material that is short but easy to understand. Moreover, I also always ensure that the content is by the learning objectives and curriculum used at this school. Furthermore, we teacher also develop materials for teaching together." (T)

Moreover, to overcome the incompatibility of learning material sources, by using effective multimedia. The teacher used other learning sources such as the Internet and YouTube. Furthermore, teacher also integrate real-life examples through multimedia, such as videos, which will make the material more interesting and increase student understanding.

"About a week before teaching, I first looked for video examples of the material I was teaching on YouTube, mbak. Furthermore, I uploaded some materials I made on the Internet so that students can easily access them.” (T)

The following solution to students' lack of motivation is to ask parents about students' activities at home. Moreover, the teacher also builds emotional closeness with students. Furthermore, the teacher provides games in class so students do not get bored and increase their motivation to learn. Furthermore, project-based learning strategies are also a solution. Students work on a project that uses English language skills in a real-life context appropriate to their major.

"During learning, I try to motivate students by providing games to build students' motivation to study so they do not get bored. I also call the parents of students who seem lazy about studying to find out whether the students at home are having problems or not. In class, I also give assignments to students to work on projects, such as making videos in English and uploading them to YouTube mbak. For example, a tutorial on installing Windows but using English" (T)

Based on observations and interviews, researchers identified several activities when implementing videos and pictures in teaching procedural texts in ESP classes. These are the activities of teacher and students, the learning and teaching processes, and the materials and media used. This activity is very effective in learning and provides interesting learning. Students seem more focused during learning. Furthermore, the teacher has prepared material that is quite interesting and easy to understand. In learning, the teacher also applies some appropriate learning activities and materials. This finding aligns with research conducted by Aminah et al., (2018), which stated that there are several activities, such as teacher activities, student activities, the teaching and learning process, and the preparation of media and materials.

However, the teacher also needs to prepare and master the material thoroughly. The challenge teacher face when teaching is that there currently needs to be more teaching materials, such as books and ESP materials, that suit the needs of students in vocational schools. So, when working later, the
teacher must look for other sources on the internet or YouTube and adapt them to the material, curriculum, and students' needs.

Meanwhile, limited time when teaching is a challenge faced by teacher because when teaching, teacher use short videos and pictures. When teaching, the teacher must also provide explanations and question-and-answer sessions. As well as giving assignments to students. So, the use of time is limited. A study by (Shah et al., 2020) supports these findings. This research reveals that teacher have limited time to implement ICT when they teach. Moreover, the teacher also has tight work schedules.

Furthermore, the teacher must adapt the content to ESP learning materials. Most English books for vocational schools are the same as those for high schools, namely general English books. So, the teacher must search for and adapt video and image content to students’ needs and find complete material relevant to students' needs for their upcoming work. In this case, previous research clouded these findings. Sukarni, (2020) revealed that students felt there was a lack of target needs for textbooks for vocational schools. Students expect textbooks that contain language aspects such as vocabulary, grammar, and material appropriate to the ESP major.

Furthermore, the teacher has some solutions for overcoming the teacher's challenges when teaching procedural texts in ESP classes. The solution to the limited time challenge is for teacher to use time wisely during learning. The teacher also develops shared teaching materials that ESP teacher can access easily, making finding appropriate material easier and more effective. Moreover, related to the challenges the teacher faces in the incompatibility of learning material sources, in this case, the teacher tries to look for other sources apart from textbooks, such as on the internet and YouTube. The teacher also integrated real-life examples through multimedia such as videos; teacher create their learning materials according to students' majors, making the material more attractive and increasing students' understanding. This finding is by research from (Al Baekani et al., 2023) which revealed that watching learning videos on YouTube will help teachers find ideas and materials.

Furthermore, to overcome the problem of students’ lack of motivation, teacher take an emotional approach to students to dig up information and provide encouragement to students, as well as consulting with their parents. Next, the teacher offers project-based learning strategies, such as students making videos and uploading them to YouTube after learning, using English language skills appropriate to their major. Moreover, the challenges found align with previous research by (Işık-Taş et al., 2019), which revealed the challenges teacher face when teaching ESP using multimedia, such as designing the syllabus and the program development process. Limited time. Lack of ESP teacher education and lack of knowledge of the subject matter. Lack of a solid theoretical foundation, such as specialized books to support ESP teaching. Students' motivation and lack of vocabulary.

However, this research also has limitations. This research has yet to fully explain holistically how videos and images influence various aspects of student learning. Furthermore, limitations of this study include the limited sample of video and short integration in engineering and networking majors, as well as the challenges teacher face and the ways teacher overcome these challenges, which limit the generalizability of the results for this study.

CONCLUSION
In conclusion, this research shows that applying short videos and images for teaching procedural texts in ESP classes to Computer and Network Engineering students at SMK Mahardika Malang has proven effective. The use of multimedia makes learning more interesting and helps students understand the material better. Even though there are challenges such as time constraints, incompatibility of learning material sources and student motivation, the teacher can overcome them with various creative solutions. However, this research has limitations. The research sample is limited to one class at a particular institution, narrowing the generalization scope. This research focuses on writing skills, ignoring other aspects of English proficiency, such as speaking, listening, and reading. However, the implications of this research are enormous. Multimedia can help teachers teach more effectively, foster a high interest in learning and be more actively involved. Multimedia can be applied more widely to increase student motivation and engagement and prepare them for future jobs in their major. The hope is that this can be included in the broader curriculum in various educational environments in line with the teaching of descriptive texts. Further research is needed to address limitations and expand the scope of this study.

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Enhancing ESP teaching for computer and network engineering students through multimedia

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