

Developing Job Sheet as Learning Media to Improve Students' Reading Literacy in Esp: Best Practices In Electrical Engineering Department Of Pnj

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ABSTRACT: In using Project-Based Learning (PBL), every subject should be in line with each other. In other words, the subject must support other subjects. Therefore, English is being taught in line with engineering practices at the workshop or we call it English for Specific Purposes (ESP). The research aims to know the role of Job Sheet and improve the better understanding for students of electrical engineering when they have practices at the workshop. The research was conducted by using descriptive quantitative. The activity started doing analysis on old version of job sheet, and then some revisions were made. The data was collected by giving questionnaires to the students. The questionnaires which contained the old version of job sheet and the job sheet being developed were spread out to 50 second-semester-students of Electrical Engineering Department, but only 45 were participated. The result showed that more students understand more on the developed one (41.9%), more structured (48.8%), clear grammar to be understood (48.5%), topic in English job sheet is in line with their practices in workshop (46.8%), job sheet may become the good guidance (44.2%), and the developed-job sheet is more understandable (78.7%). Based on these, it implies that the developed-job sheet may be used as the new guidance for students to improve their reading literacy in English for Specific Purposes (ESP). Finally, the research found that students' improvement increased both on knowledge of English and technical matters.

KEYWORDS : ESP, Job Sheet, Practices, Workshop

I. INTRODUCTION

The English language has an important communication role in an increasingly globalized world. It is used in many international businesses, organizations and academic conventions (Ritcher, 2022). English has been the international language for communication since 17th century and still being used now. Currently it has been developed into its specific purposes. Meanwhile, the result of learning process will be called successful if the students have improvements in the way they think or behave. Moreover, they have improvements not only in cognitive aspects, but also in psychomotor and affective aspects (). Learning is a process to be passed and achievement is the result of the process. Learning achievement is also indicator used to measure capabilities, knowledge and skills that students must have. Politeknik Negeri Jakarta (PNJ) is a kind of vocational institution which teaches its students some basic skills to be adapted in industrial world. Every vocational school specifically has uniqueness in practicing students to blend easily when they work (Labib, Muhammad, et al; 2023). The students of PNJ are obliged to take 60% of curriculum at the laboratories or workshops, and another 40% of curriculum of theories in regular classes. The students cannot choose the subjects taken in every semester. The subjects given are already packaged for every semester.

English subject is taught for 3 (three) semesters only which starts from semester 2, and then 3 and ends in semester 4. In Electrical Engineering Department, English subject which is being taught is English for Electrical Engineering or English for Specific Purposes (ESP). Since Project-Based Learning (PBL) has been applied in this department, English subject must be in line with other technical subjects. In this system, students are asked to find the solutions to the problems. It helps students think critically and creatively. Frankly speaking, students of Electrical Engineering of PNJ are lack of motivation and it gives effect to their literacy, especially when they find numbers. They have difficulty to read the math equations. Normally as facilitators, ESP lecturers must provide feedbacks and support for them to assist their learning process (Guo, et al: 2020). Therefore, ESP lecturers must work very hard to assist them to improve their reading literacy. A job sheet is a document that outlines all the essential information about a specific job. Job sheet can come in many formats and sizes. They are the glue that holds a job together. Students of Engineer can find details about a job. It may contain a job number, category, calculations, materials, et cetera. Job sheet contains instructions to help students do their practices in the workshop. Similar to this, in English subject, the job sheet will contain the language points,

language focus, numbers, grammar, and structure. Students will practice ESP through job sheet. This will practice students' reading and writing skills.

II. METHOD

The method used for this mini research was mixed descriptive qualitative and quantitative. The respondents were 50 students from 2 parallel classes. The level of their English skills was ignored. The most important thing is that they had same practices in the same workshop and got same ESP in the previous semester. As information, students of Engineering just have 3 semesters learning ESP at Politeknik Negeri Jakarta. The research started with spreading the questionnaires to the students of Electrical Engineering who were sitting on the fourth semester. The data was collected and then classified according to the questions given. Following this, the results were tabulated and interpreted.

III. FINDINGS AND DISCUSSION

After the data was collected and then classified according to the questions given, it was analyzed.

No.	Daftar Pertanyaan	Sangat Tidak Setuju	Tidak Setuju	Netral	Setuju	Sangat Setuju
1.	"Jobsheet Electric Bell - 2" memiliki tujuan yang lebih jelas dan lebih mudah dipahami	2.3%	6.8%	11.4%	40.9%	38.6%
2.	Urutan penyajian materi pada "Jobsheet Electric Bell - 2" menjadi lebih terstruktur dan mudah diikuti	0%	4.5%	13.6%	47.7%	34.1%
3.	Dengan adanya "Language Focus" pada "Jobsheet Electric Bell - 2" dapat membantu mahasiswa memahami struktur kalimat teknis dalam bahasa Inggris	4.5%	2.3%	9.1%	45.5%	38.6%
4.	Bahasa Inggris yang digunakan dalam "Jobsheet Electric Bell - 2" sesuai dengan materi praktikum di bengkel	2.3%	4.5%	20.5%	45.5%	27.3%
5.	"Jobsheet Electric Bell - 2" membahas topik yang relevan dengan materi praktikum yang ada di bengkel	2.3%	6.8%	15.9%	45.5%	29.5%
6.	Penjelasan tata bahasa Inggris dalam "Jobsheet Electric Bell - 2" lebih jelas dan mudah dipahami	4.5%	4.5%	13.6%	40.9%	36.4%
7.	Penjelasan mengenai prosedur kerja dalam bahasa Inggris di "Jobsheet Electric Bell - 2" sudah jelas	2.3%	6.8%	13.6%	43.2%	34.1%
8.	"Jobsheet Electric Bell - 2" dapat menjadi panduan yang efektif dalam melakukan praktik di bengkel	4.5%	4.5%	11.4%	43.2%	36.4%
9.	"Jobsheet Electric Bell - 2" sangat bermanfaat untuk meningkatkan kemampuan bahasa Inggris secara tertulis	2.3%	4.5%	6.8%	43.2%	43.2%
10.	"Jobsheet Electric Bell - 2" menjelaskan hasil praktik di bengkel dalam bahasa Inggris dengan jelas	2.3%	9.1%	11.4%	36.4%	40.9%
Vote						
11.	Jika harus memilih satu jobsheet untuk digunakan dalam pembelajaran ke depan, mana yang Anda pilih?	Jobsheet Electric Bell - 1 (Before being developed)				22.7%
		Jobsheet Electric Bell - 1 (After being developed)				77.3%

IV. CONCLUSION

Based on the discussion above mentioned, it can be stated that students need the job sheet which contains the clear direction how they can be guided in doing the practices in the workshop, especially for ESP. This job sheet will be their guidance for making a report because the students are asked to write a report of their practices after they finish doing so. In conclusion, the new job sheet being improved is more understandable for students (77.3%). This means that it may improve students' literacy in reading both math equations and English vocabularies. In the future, hopefully this job sheet model will become the standard for all departments of Engineering at PNJ and it will depend on which topics they focus on. In other words, the use of job sheets in Electrical Engineering Departments provides benefits for both lecturers and students. It is because the job sheet provides convenience in the learning process, especially in practice. Not only that, the skill in English language may improve as well. Moreover, the use of job sheets may also improve students' independency, confidence, motivation and responsibility.

REFERENCES

1. Achrur, A. 2019. Curriculum Development Components and Models. *Education Inspiring Journal*, Vol. 8, No.1, pp.1-9.
2. Depdiknas. 2003. Guidelines for Implementing Industrial Work Practices. Jakarta: DPMK
3. Endang, Mulyaningsih., Sugiyono, & Sutriyani. 2014. Vocational School Edupreneurship Development. Yogyakarta: Universitas Negeri Yogyakarta.
4. Fakhri, Faizal., & Abdurrahman. 2016. Peranan Job Sheet of Independent Lab Work Based Problem Terhadap Keterampilan Praktik Siswa SMK pada Kompetensi Sistem Injeksi Bahan bakar Motor Diesel. *Jurnal Pendidikan Teknik Mesin*, Vol.16. No 2. Desember 2016.
5. Guo, Pengyue., Saab, Nadira., &Admiraal, Wilfried. 2020. A Review of project-based Learning in Higher Education: Student Outcomes and Measures. *International Journal of Educational Research*. Vol. 102, 2020
6. Labib, Muhammad Mughnil., Santosa, Budi., & Susastya, Edhy. 2023. Job Sheet Implementation as a Resource Mechanical Engineering Practice Learning at SMK Muhammadiyah 1 Sukoharjo. *Journal of Vocational Education Studies*. Vol. 6, No, 1, 2023, pp.147-155.
7. Manalu, R. 2021. Development of Job Sheets for Electrical Installation Practices as Learning Media at SMK S Dwiwarna Medan. Universitas Negeri Medan.
8. Permani, Z., & Hambali, H. 2022. Making Job Sheet for Electric Lighting Installation Practice in Vocational High schools. *Journal of Electrical Engineering Education*. Vol. 3, No. 2, pp.163-171.
9. Prastowo, A. 2012. Creative Guide to Create Innovative Teaching Materilas. Yogyakarta: Diva Press.
10. Richter, Nicholas. 2022. An Investigation of Learning English as Second Language in Korea. *Journal of Problem-Based Learning*. Vol. 9 (2): 77-86