PENINGKATAN KETUNTASAN KOMPETENSI KETUNTASAN KOMPETENSI KELISTRIKAN BODI BERBASIS SKKNI MELALUI METODE DTL

INCREASE COMPLETENESS OF BODY ELECTRICAL COMPETENCE BASED ON SKKNI THROUGH DTL METHOD

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ABSTRAK

Pada proses pembelajaran sistem kelistrikan bodi Teknik Kendaraan Ringan/Otomotif, para siswa diharapkan dan dituntut untuk dapat memenuhi beberapa kompetensi yang telah ditetapkan dan mengacu pada SKKNI (Standar Kompetensi Kerja Nasional Indonesia). Tujuan penelitian ini adalah (1) Meningkatkan ketuntasan kompetensi sistem kelistrikan bodi melalui penerapan metode pembelajaran DTL berbasis SKKNI menggunakan media stand kelistrikan bodi, (2) Mendeskripsikan proses penerapan metode pembelajaran DTL berbasis SKKNI menggunakan media stand kelistrikan bodi dalam meningkatkan kompetensi sistem kelistrikan bodi. Penelitian ini merupakan PTK yang dilaksanakan di SMK Leonardo Klaten. Setiap siklus dimulai dari tahapan perencanaan, pelaksanaan, observasi, dan refleksi. Analisis data dilakukan dengan perbandingan antara pra siklus, siklus I, dan siklus II dengan memperhatikan peningkatan kompetensi/ketuntasan pada kedua siklus. Hasil penelitian menunjukkan terjadi peningkatan ketuntasan kompetensi siswa dari pra siklus sebesar 39% atau 13 siswa, kemudian pertemuan I siklus I sebesar 58% atau 19 siswa, lalu pertemuan II siklus I sebesar 67%, dan pada pertemuan I siklus II sebesar 94% atau 31 siswa serta hasil ini sudah mencapai target yang telah ditentukan yaitu 80% pada siklus II. Sedangkan untuk proses penerapan DTL pada kegiatan inti pada pelaksanaan adalah penyampaian garis besar, unjuk kerja/demonstrasi, dan uji coba siswa.

Kata Kunci: Demonstration Teaching and Learning, SKKNI, Sistem Kelistrikan Bodi.

ABSTRACT

In the learning process the electrical body lightning system, students are expected and required to be able to fulfill several predefined competencies and refer to the SKKNI (Standar Kompetensi Kerja Nasional Indonesia).

The aims of this study were (1) to improve the competency completeness of the body's electrical system through the application of the SKKNI-based DTL learning method using the electrical body's stand media, (2) to describe the process of implementing the SKKNI-based DTL learning method using the electrical body's stand media to improve the competence of the electrical body system. This research is a CAR (Classroom Action Research) conducted at Leonardo Klaten Vocational School. Each cycle starts from the stages of planning, implementing, observing, and reflecting. Data analysis was carried out by comparison between the pre-cycle, cycle I, and cycle II by taking into account the increase in competency/completeness in both cycles. The results showed that there was an increase in student competency completeness from pre-cycle by 39% or 13 students, then meeting I cycle I by 58% or 19 students, then meeting II cycle I by 67%, and at meeting I cycle II by 94% or 31 students and these results have reached the predetermined target of 80% in cycle II. As for the process of implementing DTL, the core activities in implementation are the delivery of outlines, performance/demonstrations, and student trials.

Keywords: SKKNI (Standar Kompetensi Kerja Nasional Indonesia), DTL (Demonstration Teaching and Learning), Electrical Body's System

INTRODUCTION

The Director General of Primary and Secondary Education of the Ministry of Education and Culture, Hamid Muhammad said "Every SMK graduate who is to be revitalized must pass a competency test and obtain a certification that is recognized by the business world," he said at the launch of the Vocational Revitalization Program at Manahan Stadium, Surakarta, (17/5/2017). And for competencies refer to SKKNI (Standar Kompetensi Kerja Nasional Indonesia). SKKNI which includes several aspects, namely aspects of knowledge, aspects of skills and/or aspects of expertise in work attitudes that are relevant to the implementation of the duties and conditions of the stipulated positions (Fuad Abdillah, 2020). And soft skills are very needed for every educator. Soft skills encourage the technical skills in self or even institutional development. (B. Ariwibowo, 2020).

The results of field observations that researchers have carried out for several days and the main priority is April 17 - 18 2023, researchers found that there are still many students whose abilities in terms of knowledge and practice are below the standards that have been set especially at X TKR A SMK Leonardo Klaten. From 33 students, a total of 20 students did not meet the completeness standards. The number of students who do not meet these standards is based on not being able to assemble the cables on the vehicle according to the vehicle network scheme used, and test the network scheme according to the repair manual.

Based on observations of existing problems, it was found that the factors causing the problems were, firstly, less effective learning because the learning method applied was lectures combined with a small portion of practice. Then it was found that the teacher explained the material twice, namely when the theory was in class and in practice in the workshop when the teacher was doing a demonstration. The third causal factor is material that is difficult for students to understand because there is no guide for students in the form of wiring diagrams and report sheets.

Based on several factors that have been described, the solution offered is first to exchange/add practical demonstration time in the workshop compared to lectures in class, then theoretical explanations are carried out in the workshop as well as on the body electrical media stand, then adding wiring diagrams and report sheets specifically for electrical body systems.

Based on the solution of adding practice time in the workshop and direct explanations by teachers in the workshop, the researcher feels that the appropriate learning method is DTL (Demonstration Teaching and Learning) to improve understanding of the material, especially students' skills which are increasingly honed through practice or learning by doing. This is also supported by (Sanjaya, 2009) in learning strategies, demonstrations can be used to support the

success of learning strategies and objectives. The right learning model can be supported by appropriate tools and materials, namely learning media that is easy for students to use by referring to the standards that have been set based on the existing SKKNI. Researchers will add wiring diagrams and report sheets.

METHOD

The research method used in this Classroom Action Research (CAR) is Demonstration Teaching and Learning using Body Electrical Stand media. This research was carried out at Leonardo Klaten Vocational High School from April to July 2023 in class and several weeks of observation after the research was carried out. The subjects of this research were students of Leonardo Klaten Vocational High School class X TKR A for the 2022/2023 academic year with a total of 33 students.

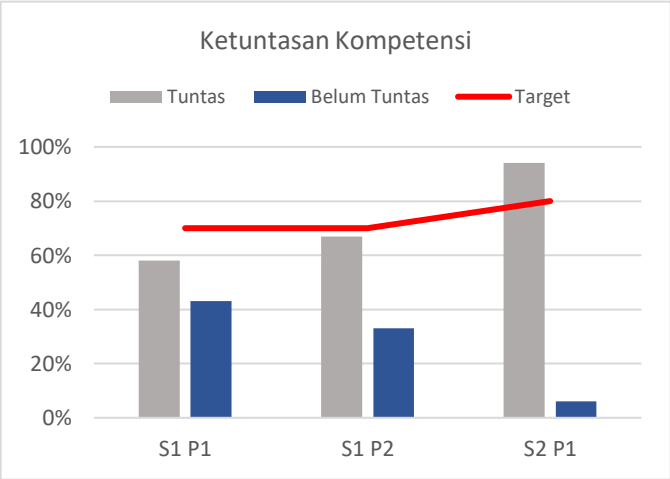
This classroom action research (PTK) was carried out in two cycles to see the increase in students' competency in the body's electrical system. This research procedure refers to the Kurt Lewin model which contains 4 (four) aspects, namely: planning, implementation, observation and reflection.

RESULT

(1) Completion of body electrical system competency

Table 1.Comparison of Competency Completeness

Item	S1 P1	S1 P2	S2 P1
Siswa Tuntas	19	22	31
Siswa Tidak Tuntas	14	11	2
Persentase ketuntasan	58%	67%	94%



Picture 1. Comparison of Competenct Completeness

Based on the data on student competence mastery results that have been presented, there was a significant increase in mastery at the first meeting of cycle I and meeting II of cycle I with an increase in completeness from pre-cycle by 39% to 58% at meeting I cycle I and to 67% at meeting II cycle I. In cycle I, the researcher applied the Demonstration Teaching and Learning learning method (giving action)

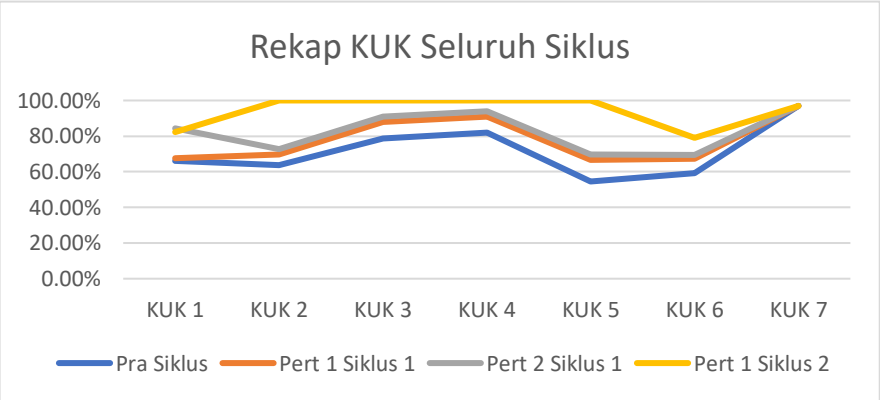
There was an increase in cycle II. The increase in completeness from meeting II cycle I was 67% to completeness at meeting I cycle II was 94%. In cycle II, the researcher changed the learning system by focusing learning on students who had not yet completed (11 students) where these students would be divided equally into 4 existing groups. Then the researcher chose students to do demonstrations with the teacher at 3 other electrical media stands. And the researcher also gave wiring diagrams to all students

(2) The process of implementing the electrical body system uses DTL method based on SKKNI

Table 2. Breakdown KUK

No	KUK	Persentase Tuntas(%)		
		S1 P1	S1 P2	S2 P1
1	KUK 1	67%	84%	82%
2	KUK 2	69%	72%	100%
3	KUK 3	87%	90%	100%
4	KUK 4	90%	93%	100%
5	KUK 5	66%	69%	100%
6	KUK 6	67%	69%	79%
7	KUK 7	96%	96%	96%

No	Keterangan
KUK 1	Menyiapkan wiring diagram yang relevan
KUK 2	Memasang perlengkapan pelindung kendaraan berdasarkan prosedur ditempat kerja
KUK 3	Menyiapkan peralatan dan perlengkapan sesuai dengan manual perbaikan
KUK 4	Menyiapkan komponen sistem kelistrikan yang akan dirangkai
KUK 5	Merangkai kabel pada kendaraan sesuai dengan skema jaringan kendaraan yang dipergunakan
KUK 6	Menguji skema jaringan sesuai dengan manual perbaikan
KUK 7	Mengisi dokumen hasil pengujian jaringan sesuai dengan hasil pengujian dan dilaporkan sesuai prosedur



Picture 2. Breakdown KUK

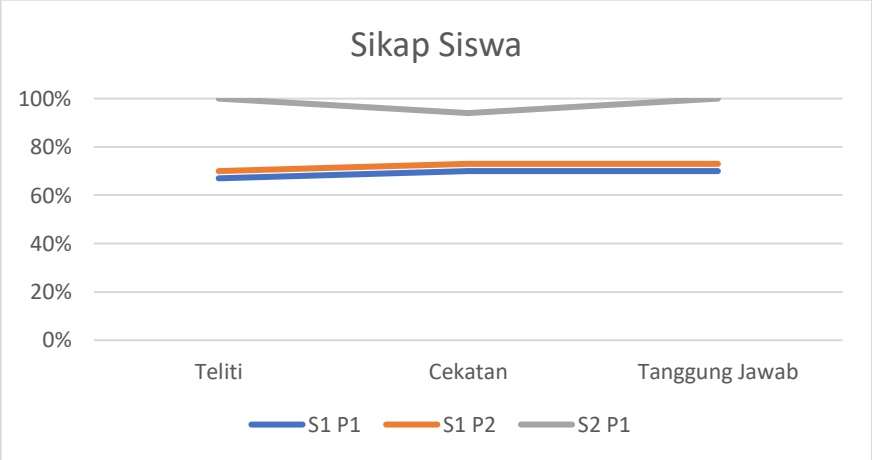
In cycle I, there are core activities, namely delivering an outline, performance/demonstration (researcher), and student trials. And get the results of the KUK breakdown at Meeting I Cycle I with the lowest scores of 66.67% and 67.17%, then at Meeting II Cycle I at 69.70% and 69.44%. In the first cycle that has been carried out, there are several problems and handling, namely first giving more focus on students who have not completed it, then the second is choosing students to carry out demonstrations together with the teacher using other body electricity stand media, and the third is giving wiring diagrams to all students.

Cycle II has core activities, namely delivering an outline, performance/demonstration (researchers and student mentors), and student trials. There was a significant increase in Meeting I Cycle II with KUK 5 completeness to 100% and KUK 6 completeness to 79.04% after being given action and problem solving.

(3) Student's Attitude

Table 3. Student's Attitude

Sikap	S1 P1	S1 P2	S2 P1
Teliti	67%	70%	100%
Cekatan	70%	73%	94%
Tanggung Jawab	70%	73%	100%



Picture 3. Student's attitude

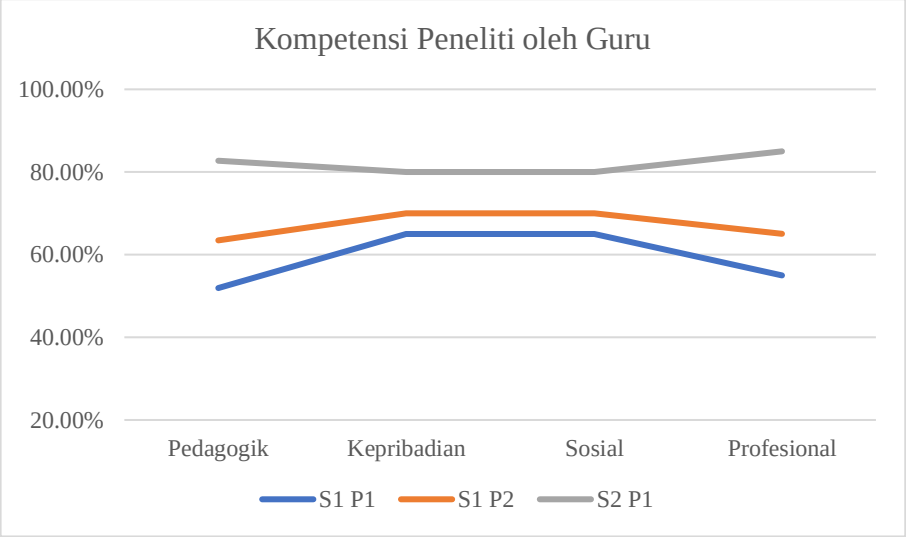
Based on student attitude data obtained from all cycles, a significant increase was obtained, especially in cycle 2, meeting 1, in the Accuracy and Responsibility aspect with a maximum point of 100% and a Dexterity aspect of 94%. This shows that the results are directly proportional between student attitudes and student competency results, where a student's good work attitude will be proportional to student competency.

At the end of cycle 2, meeting 1, the researcher's attitude showed motivation and support for students so that they could increase students' accuracy, responsibility and dexterity. However, at the first meeting of cycle II, there was an aspect of student dexterity of 94%, which is in accordance with the completeness of student competencies.

(4) Research's Competence

Table 4. Research's Competence

No	Aspek	S1 P1	S1 P2	S2 P1
1	Pedagogik	51%	63%	82%
2	Kepribadian	65%	70%	80%
3	Sosial	65%	70%	80%
4	Profesional	55%	65%	85%



Picture 4. Research's Competence

In the data from the teacher's assessment of researchers, it was found that there were improvements in each meeting cycle, where at meeting 1 of cycle 1 the researcher's competency was still below 70% to only 2 competencies that were below 70% at meeting 2 of cycle 1 and finally at meeting 1 cycle 2 all aspects of the researcher are above 70%. This shows that there is improvement and improvement in the researcher's competence in each meeting cycle, especially in the first meeting of the second cycle, the researcher provides significant motivation and support, thus influencing the researcher's competence as well as the student's competence and attitudes.

CONCLUSION

The application of the DTL (Demonstration Teaching and Learning) learning method based on SKKNI using the electrical body stand media can improve the completeness of the competency of learning the body's electrical system. And the results of the learning and

application of DTL (Demonstration Teaching and Learning) there is an increase in student competency completeness as follows: Cycle 1 Meeting 1 student competency completeness is 58%, then Cycle 1 Meeting 2 student competency completeness is 67%, and in Cycle 2 Meeting 1 to 94%. From the two cycles with three meetings it can be concluded that the use of the DTL method is necessary so that it can increase student competency/acquisition.

The process of implementing DTL (Demonstration Teaching and Learning) based on SKKNI in the core activities of implementation in cycle I was the delivery of outlines, performance/demonstrations (researchers), and student trials. The core activities in cycle II are the delivery of outlines, performance/demonstrations (researchers and mentor students), and student trials. This learning process uses report sheet assessment instruments, assessment instruments, and wiring diagrams.

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