Project-Based Learning (PjBL): Challenge and Solution

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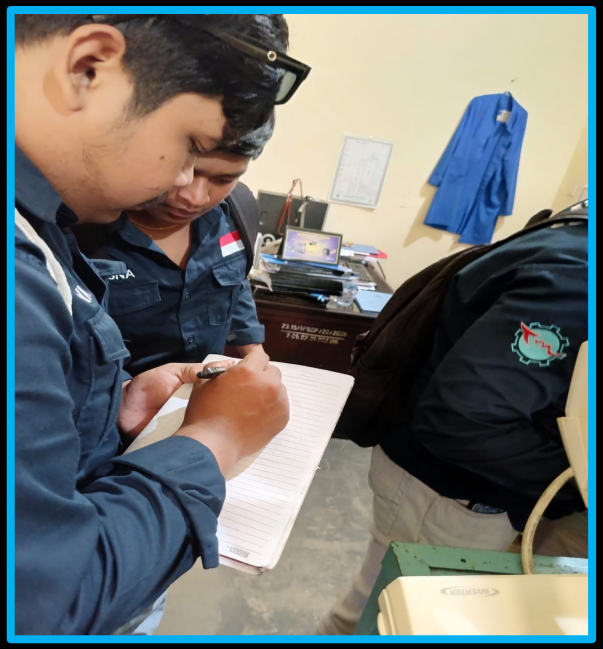
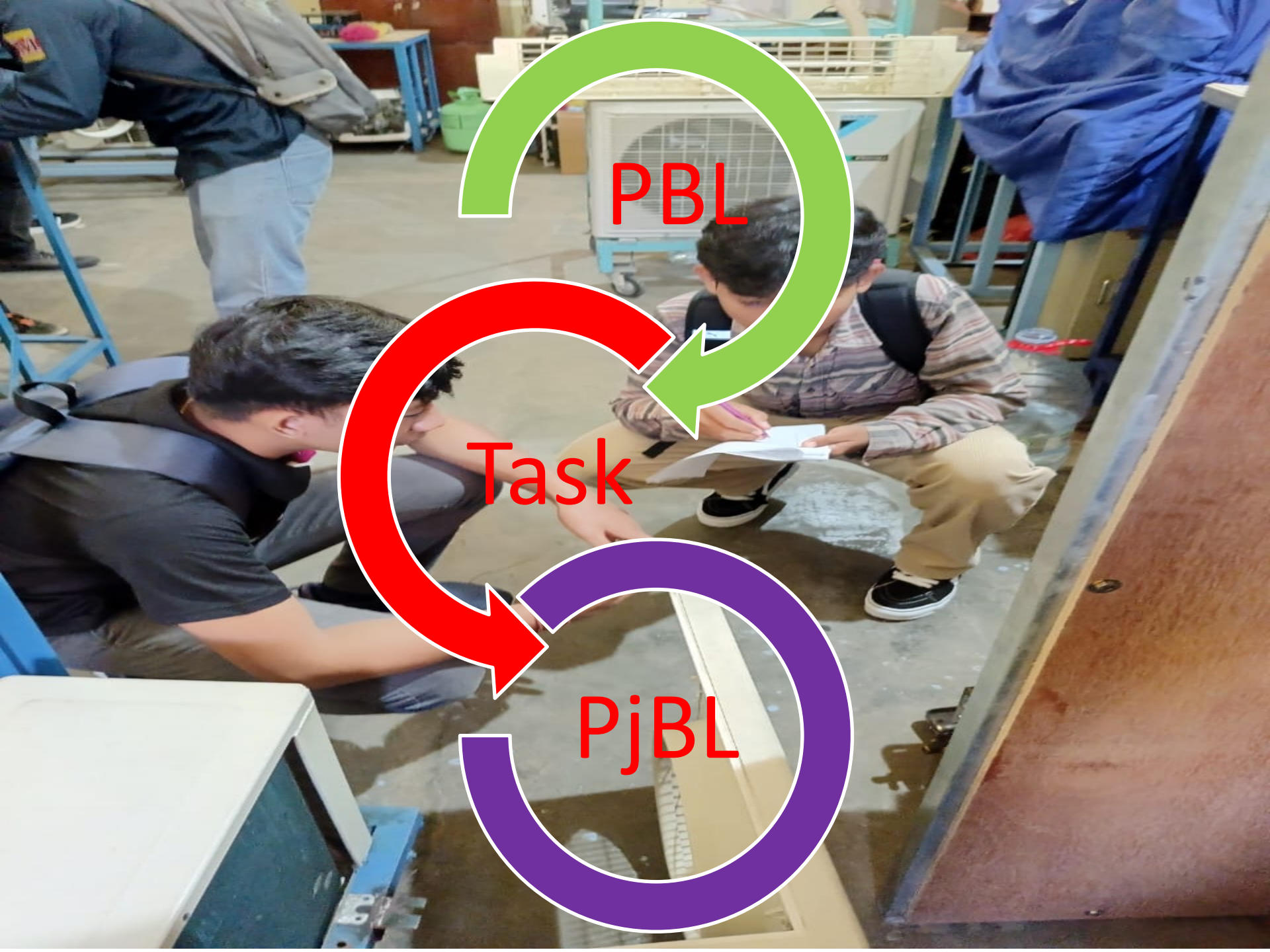
Some Issues about PjBL

- Improving students' *learning motivation* (Blumenfeld et al., 1991),
- Develop *the 21st century skills* (Barron, et al., 1998; Markhan (2006)
- Students can learn using *authentic materials* (Blank in Blank and Harwell, 1997; Dickson et al., 1998; Westwood, 2008),
- Students' *involvement in determining topic or theme of project*, information enquiry, collecting data, defining stages of projects, presentation of the project (Stoller, 1997, Korlmaz and Kaptan, 2001).
- Supportive as there are *result of information sharing, discussion, task division, essay writing and presentation* (Guven, 2014)
- Students' *exploration of real-world problems, issues and challenges* (Lam, 1991)

Investigation and Implementation of PjBL

- In engineering area (Hadim & Esche, 2002);
- Biology (Larmer & Mergendoller, 2010);
- Vocabulary (Shafaei & Rahim, 2015);
- Management (DeFillippi, 2001);
- English teaching and learning (Lam, 2011,
- Fragoulis, 2009, Poonpon, 2006);
- Education (Miftari, 2013; Helle, Tynjala & Olkinuora, 2006).




PBL
Task
PjBL

TBLT (Tasks) support PjBL

Structural language learning with particular objective, appropriate content, a specific working procedure, and a range of outcomes (Somawati, Astuti, Kanca, Widanta: 2017)

Improve not only students' CC but also grammar competence (Somawati, Astuti, Kanca, Widanta, Ardika: 2017);

Effective to CC by implementing the LEAN (*Lead in, Encourage, Activate, Naturalization)* (Somawati, Kanca, Widanta, 2018);

Supportive for the EFL writing class in PNB (Sita, Putra, Suciani, Widanta, Ardika, Hudiananingsih, 2022).

Effective for improving students' productive skill (communication) task was designed for a specific language use (Somawati, Widanta, Kanca, Ardika: 2019)

Some Facts about PBL

- ✓ Students find a solution to a problem.
- ✓ Students find a solution to a problem.
- ✓ Presented with the use of open-ended questions.

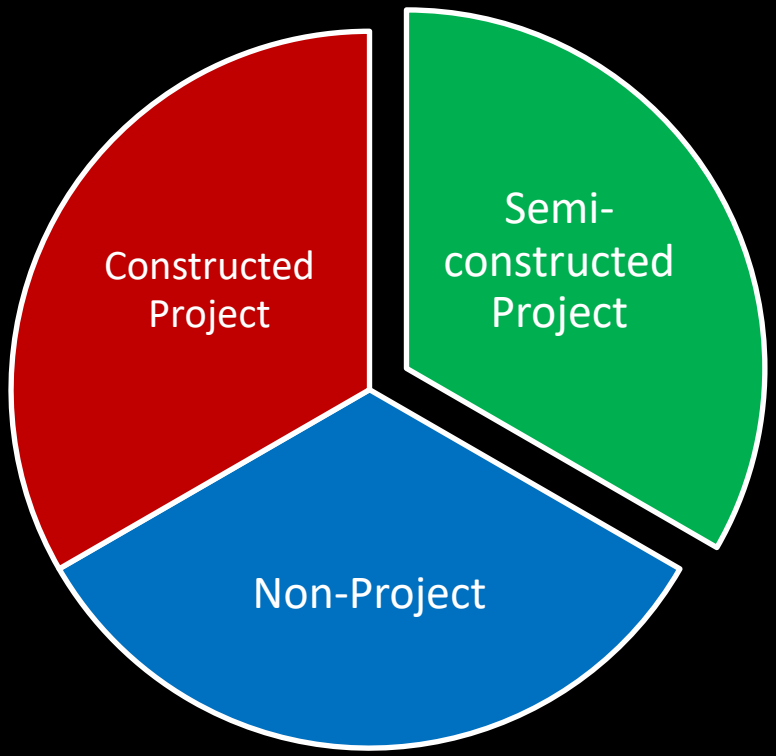
- Generate hypotheses (SS are requested to make hypotheses prior to solution);
- Seek data to find out answer or solution (Sources: books, internet, observation on facts, articles and other sources);
- students are obliged to solve a real life problem (by formulating questions, identifying problems and solving them).

Traditional Teaching Method vs PjBL

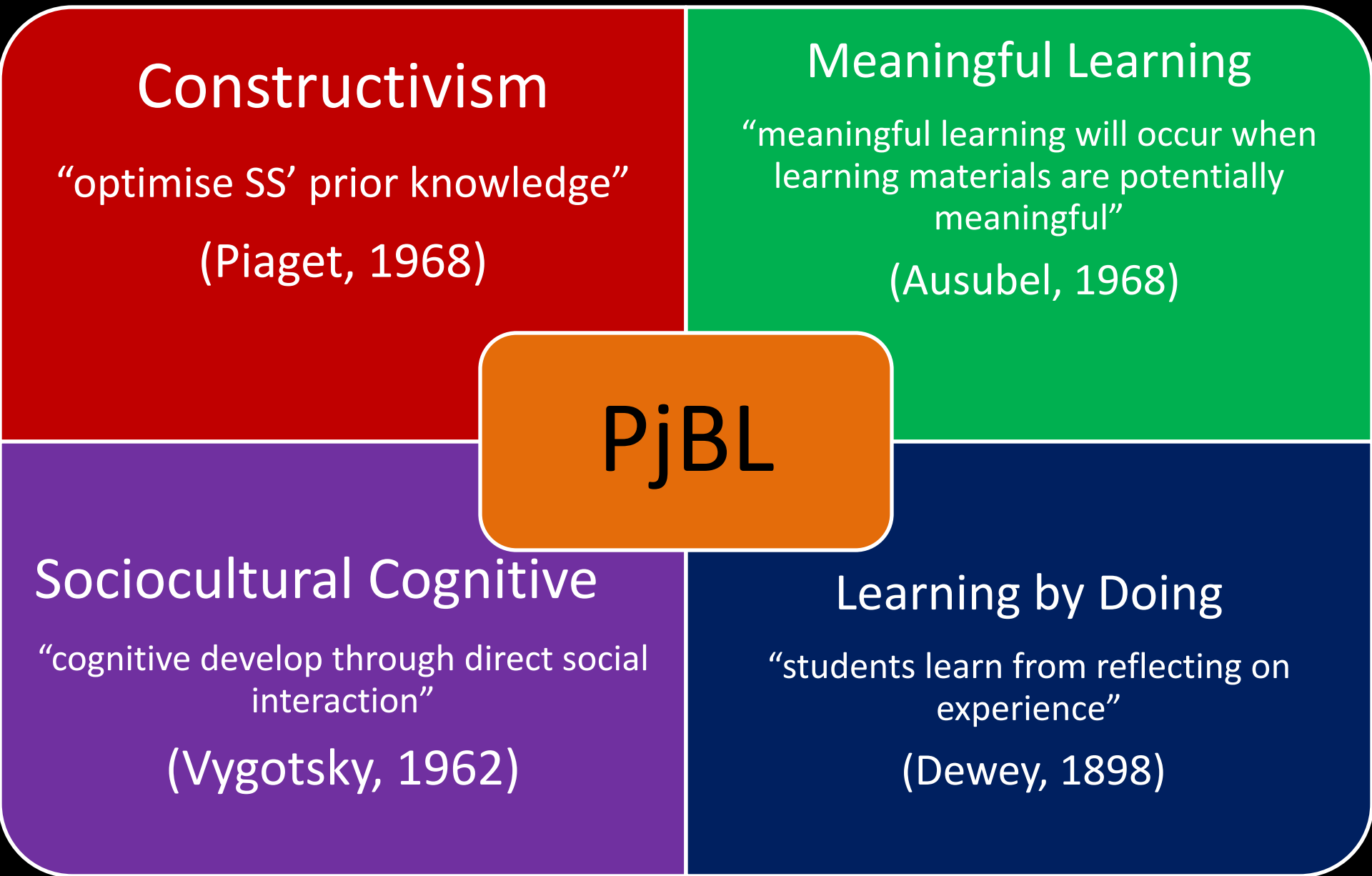
- Tends to structure the learning situation;
- Ts expected SS to be able to answers exercises, examination; tend to use academic language in instructing, students' competence in answering written exercises;
- Teachers seen as authority figure both inside and outside class;
- Assess & reward SS accuracy in using the language (how language is used accurately) not the process and output.
- SS become dependent to teachers,

- Freedom in choosing topic, project site, working the project, and data sources).
- SS seek & gather information on their own.
- Independence to determine the project execution (Ts control, help share opinion during project).
- Students are encouraged to use self-discovery approach to solve problem).
- The theme or topic still correlates with the class curriculum.

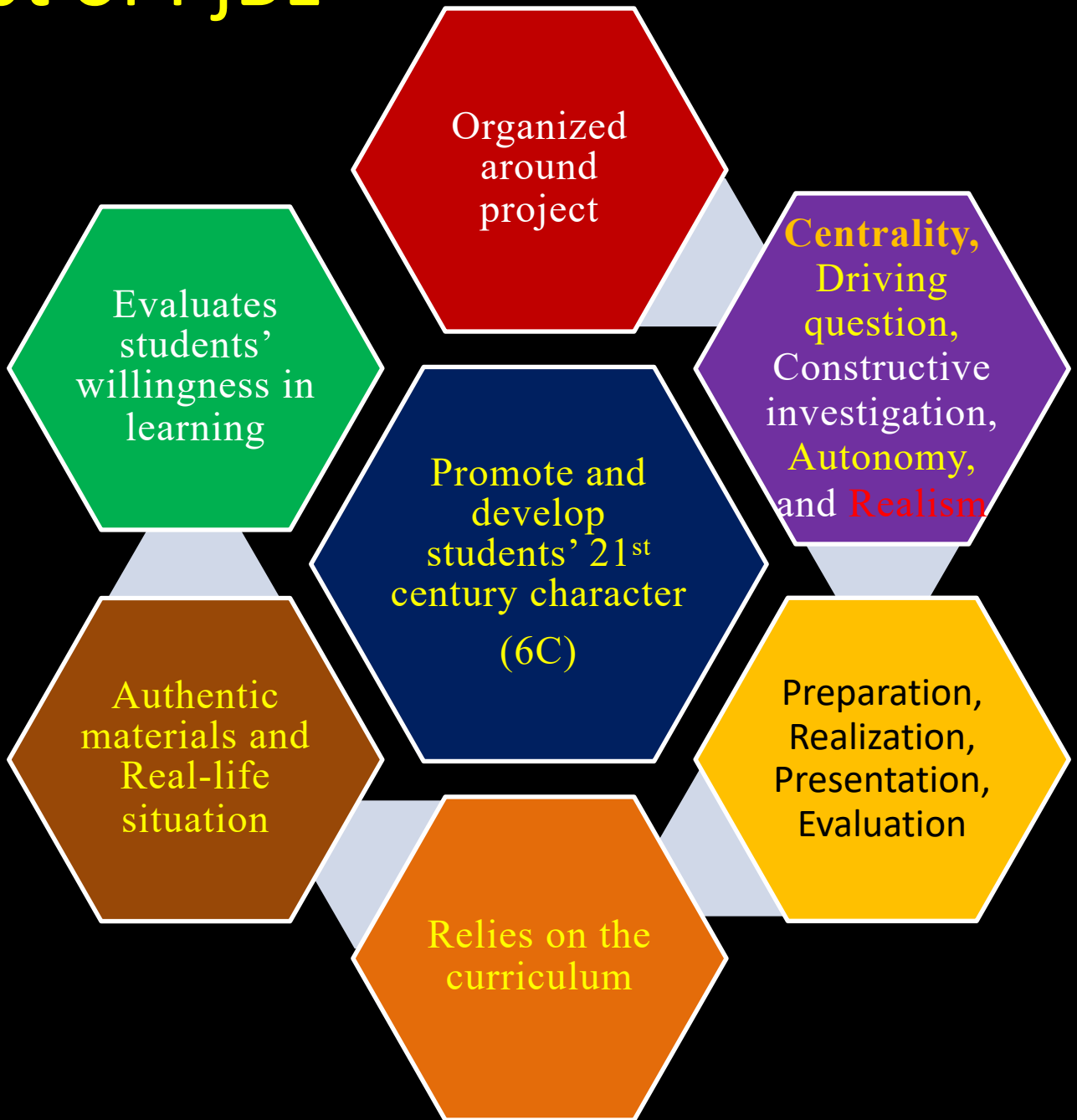
Types of Project



Origin of PjBL



Concept of PjBL



What does PjBL benefit?

- Writing essay,
- Reporting Result

- Investigating, Autonomous,
- Authentic

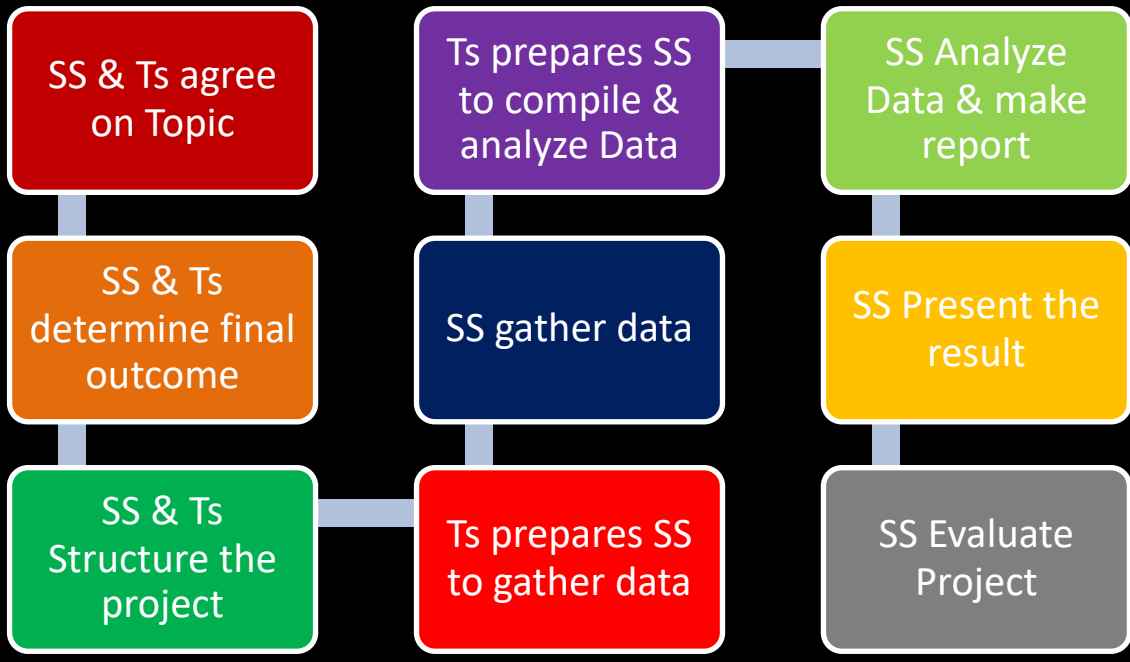
- Collabartine, Communicative

- Task-execution
- Resposibility
- cooperative

Stages of PjBL

Stoller (2006)

Lam (2011)



Problem Faced in English for Mechanical Engineering (EME) & English for Children (EC)

Students' insufficient General English knowledge
Students' insufficient technical vocabularies
Students' weakness of speaking skill
Students' poverty in writing skill

Lam's (2011) argument: Preparation prior to project!

Children lack of language awareness
They lack of braveness & confidence
They are not used to knowing English
They lack of vocabulary and grammar.

Preparation

EME

Giving overview or Project (Ts initiated)

Topic determination (Ts-SS nego-tiation)

Grouping (SS initiated)

Project stages (Ts-SS decided)

Member Role (Ts - SS decided)

Language Aspect (Ts initiated, SS produced)

EC

Giving overview or Project (Ts initiated)

Topic determination (Ts initiated)

Grouping (Ts initiated)

Project stages (Ts initiated)

Member Role (Ts initiated)

Language Aspect (Ts initiated, intensive practice, feedback, game)

Realization

EME

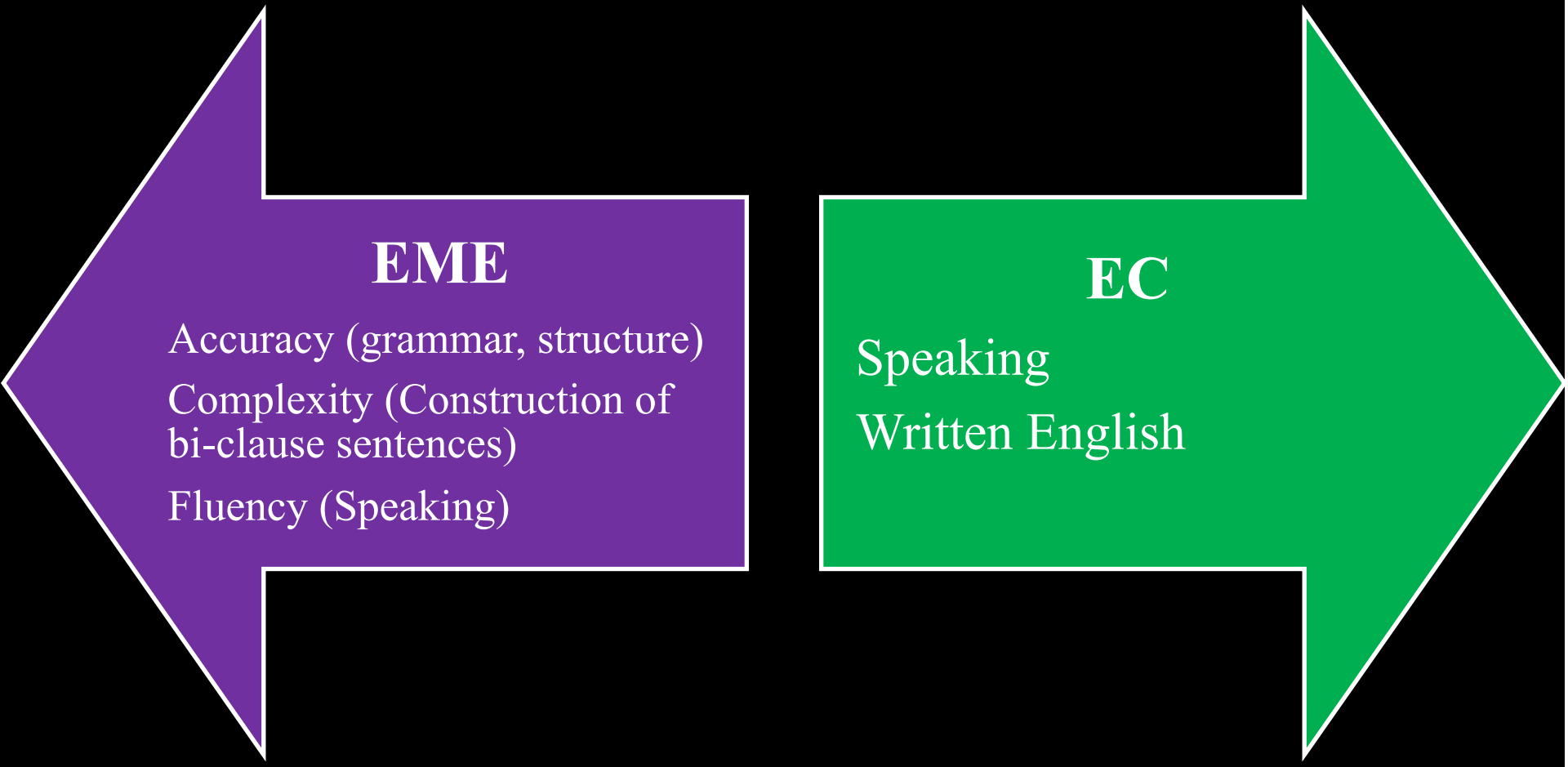
- Information gathering (observation, internet, library research);
- Preparing SS to compile (instruction, arrange sentences, develop sentences);
- Compiling (SS make paragraph, Ts control, facilitate,0;
- Prepare SS for language demand (Ts refresh SS language, explanation, practice speaking, feedback)

EC

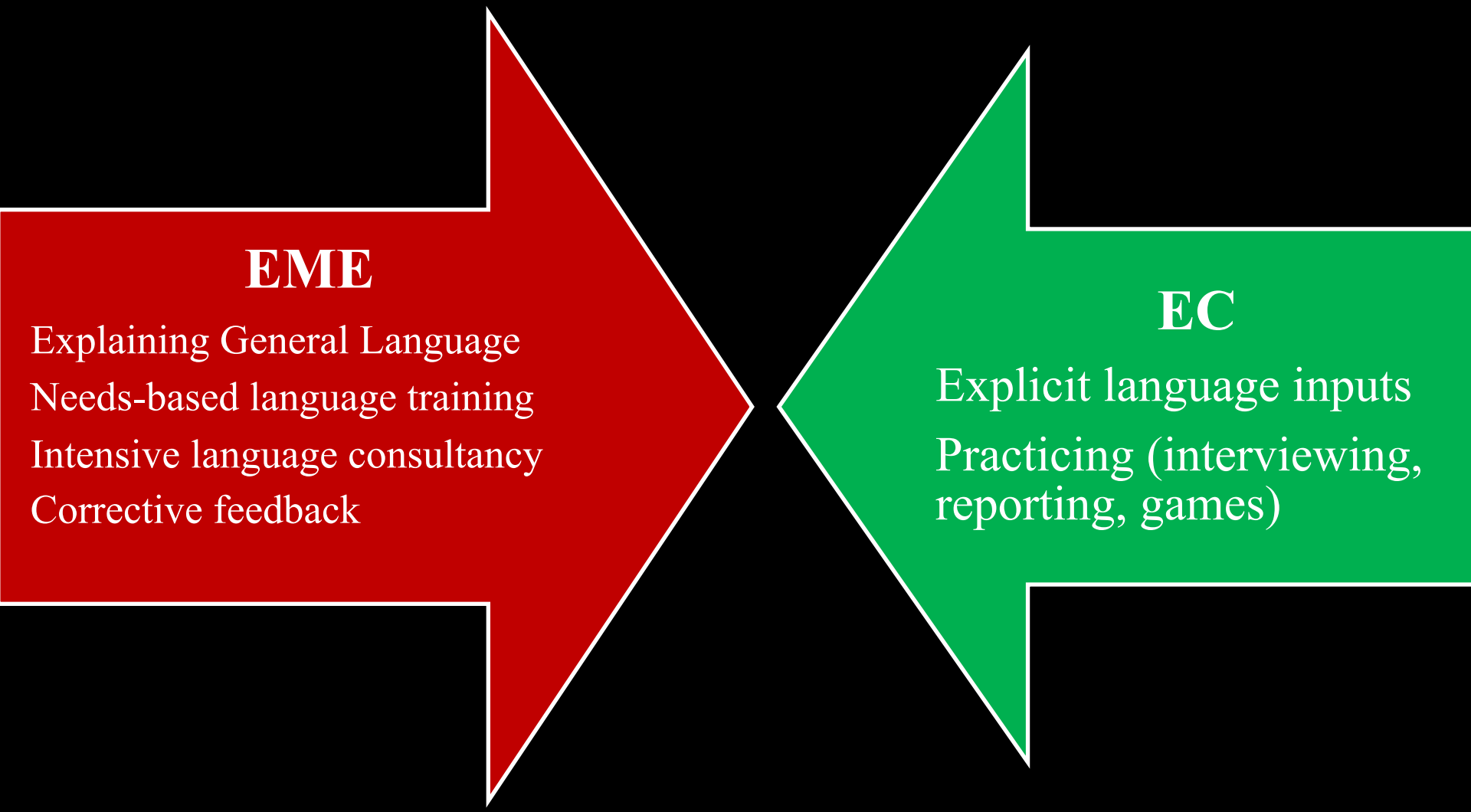
- Information gathering (SS search on Internet, SS ask Ts the English words for Indonesian ter/ vocab);
- Preparing SS to compile (Ts instructed SS how to make sentences for a paragraph);
- Compiling (SS construct sentences for a short paragraph;
- Ptrepare SS for language demand (Ts presented language, SS produced sentences, Ts gave feedback)

Presentation

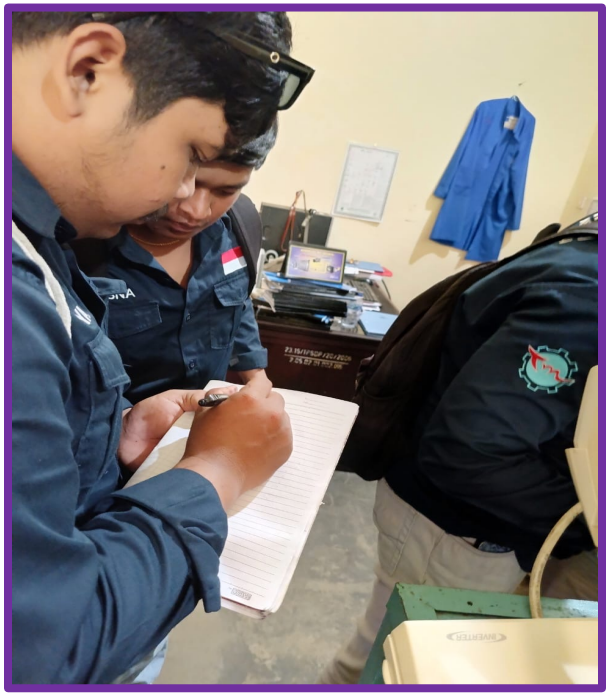
Students' obstacles

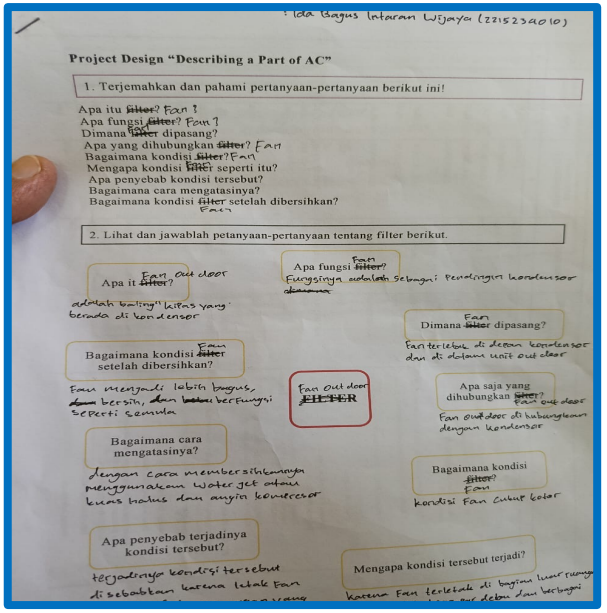


Solution to Obstacles




Bali





: Ida Bagus Intaran Wijaya (2215234010)

Project Design "Describing a Part of AC"

1. Terjemahkan dan pahami pertanyaan-pertanyaan berikut ini!

Apa itu ~~filter~~? Fan ?
Apa fungsi ~~filter~~? Fan ?
Dimana ~~filter~~ dipasang?
Apa yang dihubungkan ~~filter~~? Fan
Bagaimana kondisi ~~filter~~? Fan
Mengapa kondisi ~~filter~~ seperti itu?
Apa penyebab kondisi tersebut?
Bagaimana cara mengatasinya?
Bagaimana kondisi ~~filter~~ setelah dibersihkan?

2. Lihat dan jawablah petanyaan-pertanyaan tentang filter berikut.

Apa it ~~filter~~? Fan out door
adalah bentuk" kotas yang berada di kondensor

Apa fungsi ~~filter~~? Fan
Fungsinya adalah sebagai pendingin kondensor

Dimana ~~filter~~ dipasang? Fan
Fan terletak di depan kondensor dan di dalam unit out door

Bagaimana kondisi ~~filter~~ setelah dibersihkan? Fan
Fan menjadi lebih bagus, ~~dan~~ bersih, ~~dan~~ berfungsi seperti semula

Fan out door ~~FILTER~~

Apa saja yang dihubungkan ~~filter~~? Fan out door
Fan out door di hubungkan dengan kondensor

Bagaimana cara mengatasinya?
dengan cara membersihkannya menggunakan Water jet atau kuas halus dan anyir kondensor

Bagaimana kondisi ~~filter~~? Fan
kondisi Fan cukup kotor

Apa penyebab terjadinya kondisi tersebut?
terjadinya kondisi tersebut di sebabkan karena letak Fan

Mengapa kondisi tersebut terjadi?
karena Fan terletak di bagian luar ruang

Task for EME

: Ida Bagus Intaran Wijaya (2215234010)

Project Design "Describing a Part of AC"

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Dimana ~~filter~~ Fan dipasang?
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Mengapa kondisi ~~filter~~ Fan seperti itu?
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Fan terletak di depan kondensor dan di dalam unit out door

Bagaimana kondisi ~~filter~~ Fan setelah dibersihkan?
Fan menjadi lebih bagus, bersih, dan berfungsi seperti semula

Fan out door
~~FILTER~~

Apa saja yang dihubungkan ~~filter~~? Fan out door
Fan out door di hubungkan dengan kondensor

Bagaimana cara mengatasinya?
dengan cara membersihkannya menggunakan water jet atau kuas halus dan angin kompresor

Bagaimana kondisi ~~filter~~? Fan
kondisi Fan cukup kotor

Apa penyebab terjadinya kondisi tersebut?
terjadinya kondisi tersebut di sebabkan karena letak Fan

Mengapa kondisi tersebut terjadi?
karena Fan terletak di bagian luar ruangan

3. Terjemahkan kalimat-kalimat berikut kemudian lengkapi dengan jawabannya.

1. ~~Filter~~ merupakan bagian dari sistem pendingin pada ac
2. ~~Filter~~ berfungsi untuk menyerap hawa panas dan di bentuk menjadi udara yang dingin
3. ~~Filter~~ menghubungkan pipa kapiler dan ekspansion velve
4. ~~Filter~~ dipasnag pada antara kompresor dan katup expansion
5. ~~Filter~~ ini dalam keadan kotor (kondisi)
6. ~~Filter~~ ini mungkin kurangnya perawatan dan mengakibatkan kurang optimal
7. ~~Filter~~ ini kotor disebabkan oleh kurangnya perawatan mengakibatkan tergadinya kebocoran
8. ~~Filter~~ ini dapat di bersihkan saat merasa kurang optimal / kotor
9. ~~Filter~~ ini harus di bersihkan secara berkala
10. ~~Filter~~ ini akan semakin optimal setelah di bersihkan dan cepat ~~dingin~~ dingin

4. Jelaskan Filter tersebut dalam bahasa Inggris dalam satu paragraf mengguakan informasi di atas

eVaporator

The eVaporator is part of the cooling system on the air conditioner. The eVaporator functions as an absorber of hot air and will be formed into cold air, The eVaporator is located between the compressor and expantion valve. The evaporator uses between the capillary pipe and the expansion valve. If the condition of the evaporator is dirty in can result in reduced ac performance so it is not too cold. the cause of a dirty evaporator is lack of maintenance so that the evaporator becomes clogged and a leak occurs in the evaporator. How to deal with a dirty evaporator by cleaning it regularly and periodically. If the evaporator is clean the evaporator will be damaged optimally and the air conditioner will get colder

Buku Monograf