



PROBLEM BASED LEARNING

**BADAN PENGEMBANGAN SUMBER DAYA MANUSIA PENDIDIKAN DAN KEBUDAYAAN
DAN PENJAMINAN MUTU PENDIDIKAN**

KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN



DEFINITION



- **Problem-based learning (PBL)** is a student-centered pedagogy in which students learn about a subject through the experience of solving an open-ended problem. Students learn both thinking strategies and domain knowledge.
- Students in class work together in team to solve the real world problems.





STRENGTH OF PBL



- PBL will happen with meaningful learning. Learners / students who learn to solve a problem then they will apply the existing knowledge to know the necessary knowledge.
- Learning can be more meaningful and can be expanded when the learners / learners faced with a situation where the concept is applied





STRENGTH PBL



- In situations of PBL, students / learners integrate knowledge and skills simultaneously and apply it in a relevant context
- PBL can improve critical thinking skills, lead initiatives learners in work, internal motivation to learn, and can develop interpersonal relationships in working group.





Learning Process in PBL



1. Basic Concept

Teacher gives basic concept, clues, reference, or link and skill needed in learning.

so, the students can enter to the learning atmosphere faster and get the accurate map of learning direction and objectives.





Learning Process in PBL



2. Defining the Problem

in this way teacher delivers the scripts or problems and students do brainstorming activity and all group members give the opinions, ideas, and conceptions to the scripts freely, so it's possible to get so many alternative





Learning Process in PBL



SET Form

S-Summarise the problem

E-Existing knowledge related to the problem

T-Things to find out to solve the problem)



Learning Process in PBL



- **Self Learning**

Learners find different sources that could clarify the issues that investigated.





Learning Process in PBL



- **Exchange knowledge**

After getting the source material for the purpose of deepening the self-learning step, then at the next meeting they discuss to clarify their achievements and formulate solutions of the problems to the group.





EXAMPLE PROBLEMS IN PBL



In twilight time, the color of the sky will look scattered orange and the sun seems bigger. Explain why this happens and how is the way to prove your theory.





EXAMPLE PROBLEMS IN PBL



Cindy loves to make a cake. Someday, when she wanted to add a baking powder to her cake, unconsciously the powder was spilled to the stove. Suddenly the fire in stove extinguished. What actually happend?



Lady of the cake.



EXAMPLE PROBLEMS IN PBL



If Budi gets diarrhea, he'll treat himself by bitter tea. But, when he gets headache, he'll drink a cup of sweet tea. How can you explain Budi's mind?

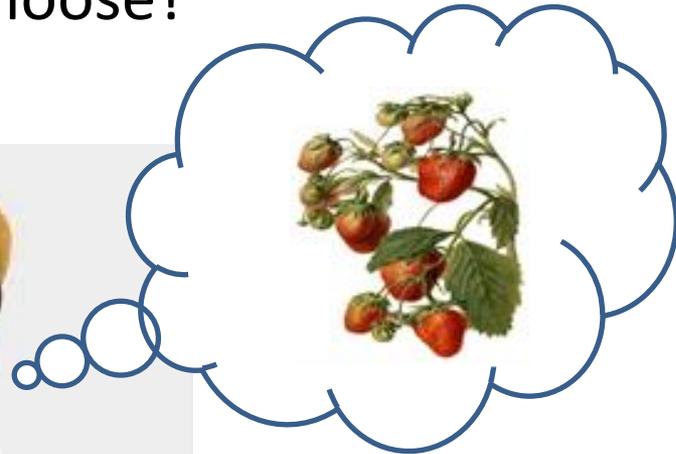




EXAMPLE PROBLEMS IN PBL



A farmer need to pick one fertilizer between KNO_3 or NH_4NO_3 to fertilize strawberry plants. If you become the farmer, and you know that strawberry grow better in pH 5.0-7.0, which one do ypu choose?





PBL STEPS



- Giving orientation about the problem to students
- Organizing students to investigate
- Helping independent and group investigation
- Developing and presenting the results and exhibition
- Analyzing and evaluating the all of the problem solving process





ASSESSMENT



Students are assessed in three aspect: Knowledge, skills, attitude.

Assessment of the mastery of knowledge that covers all learning activities undertaken with final exams (UAS), midterm (UTS), quizzes, homework, documents, and reports.

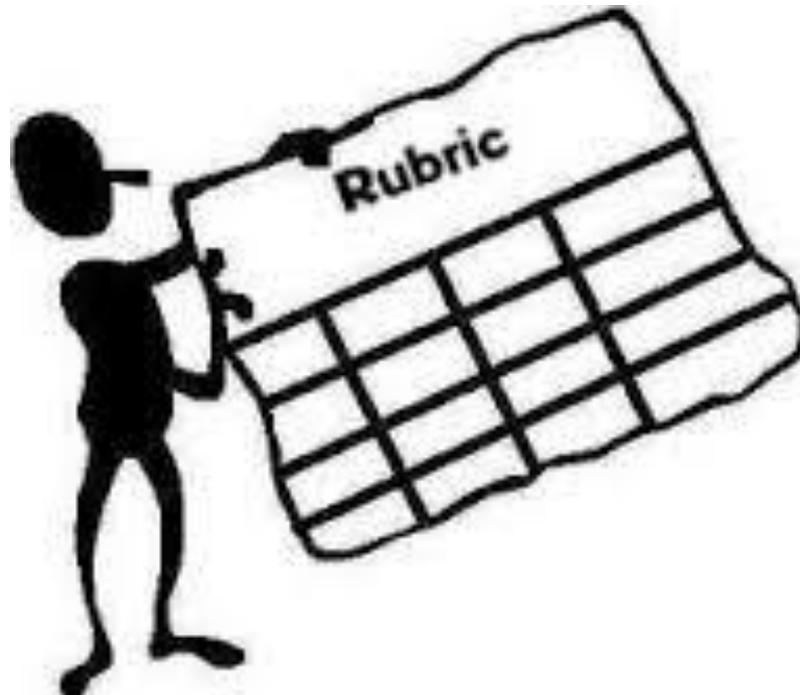


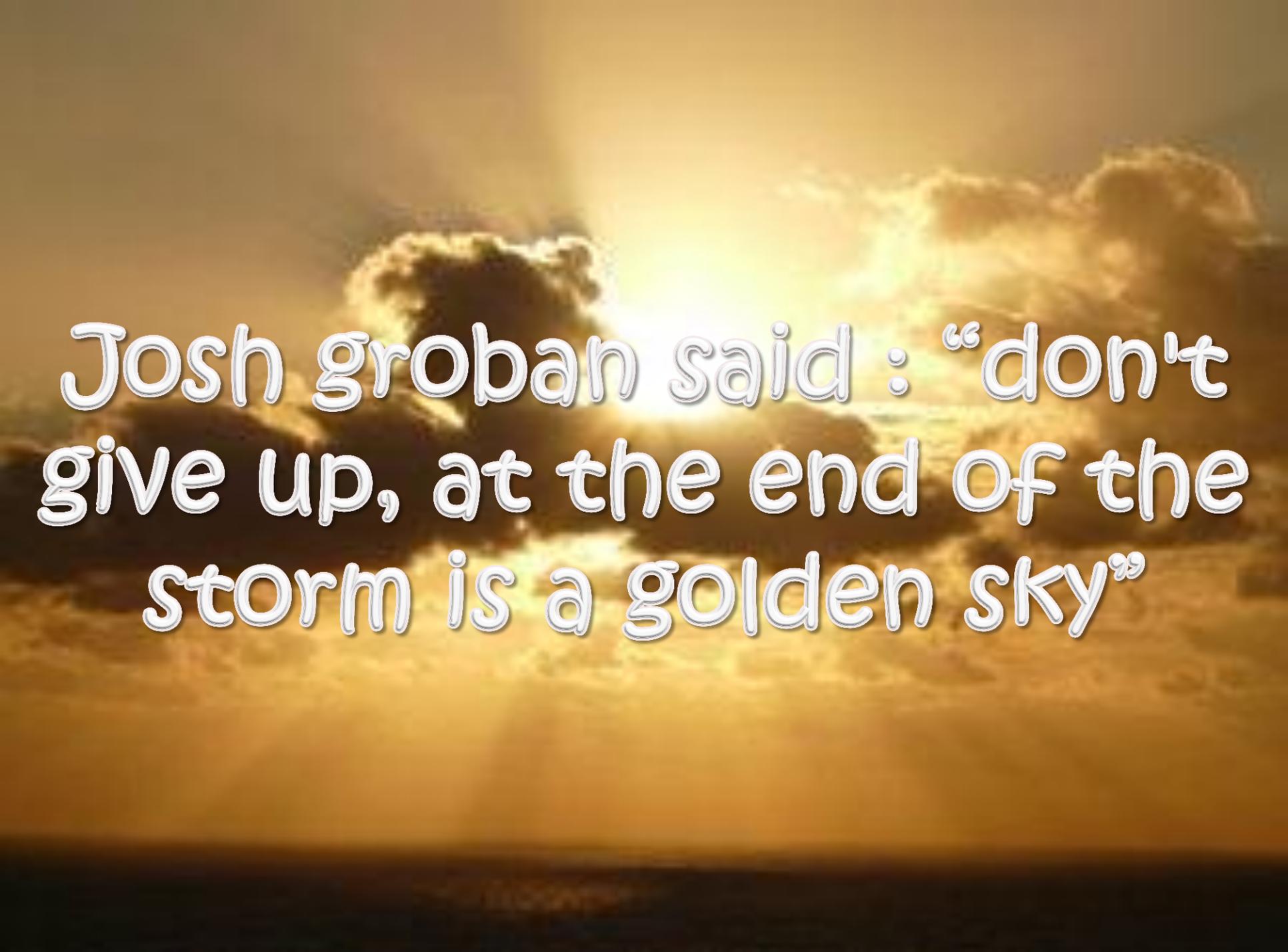


ASSESSMENT



The assessment in PBL using authentic assessment, by collecting all of the systematic worksheet of students to see the progress of learning while provide a solution. The assessment can be self-assessment and peer-assessment.





Josh groban said : “don't
give up, at the end of the
storm is a golden sky”



THANK YOU