



Problem-Based Learning (PBL) as a new practical method of skill development in the Marine Science Program

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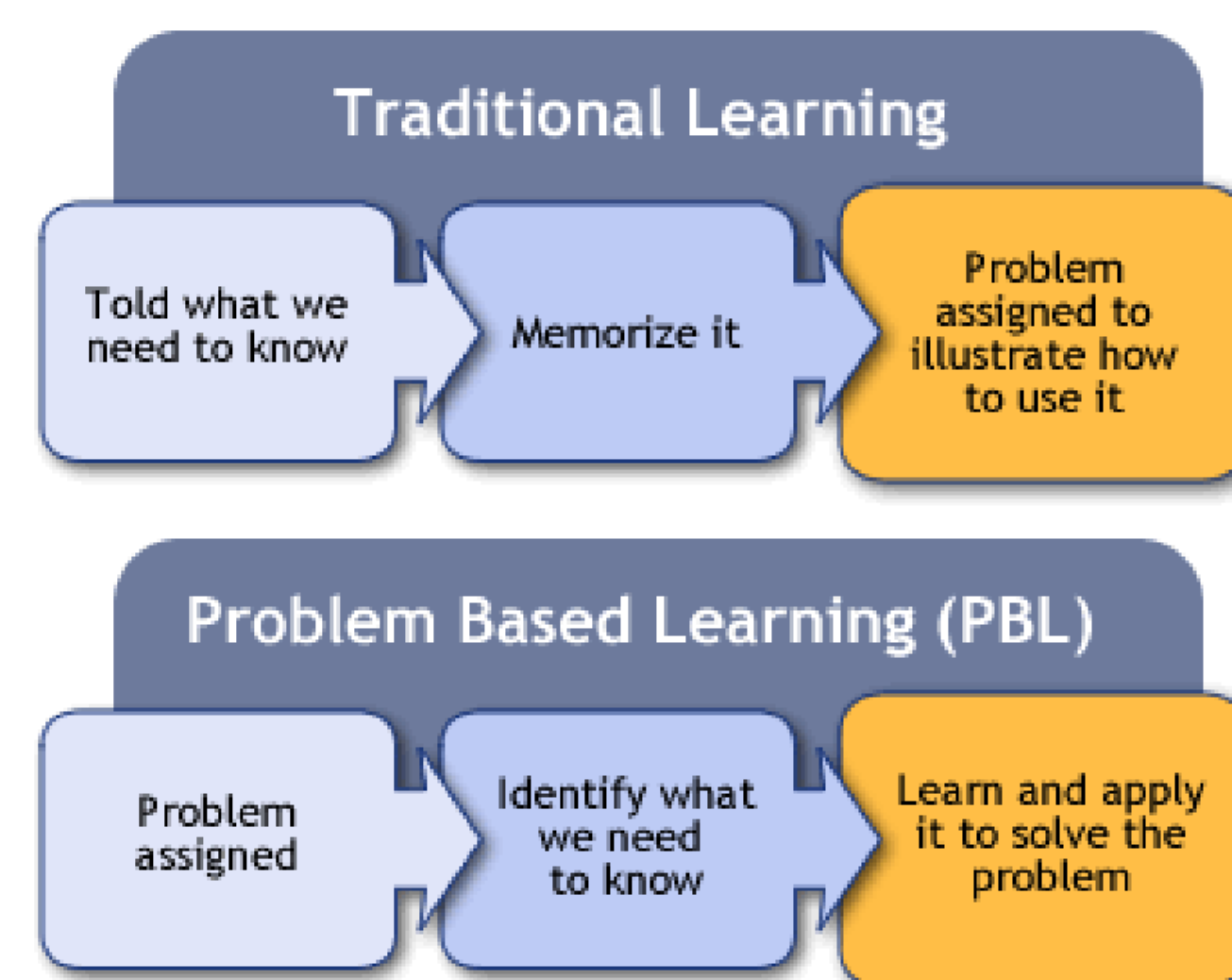
Introduction :

Problem-based learning (PBL) is a method of learning and teaching which allows students to focus on how and what they will learn. An unfamiliar problem, situation or task is presented to the students and students are required to determine for themselves how they will go about solving the problem.

In Marine Science program, PBL is used in many subjects, in order to train students to practice solving problems, critical thinking and creative thinking. It can also provide opportunities for working in groups, finding and evaluating research materials, and life-long learning (Duch et al, 2001).

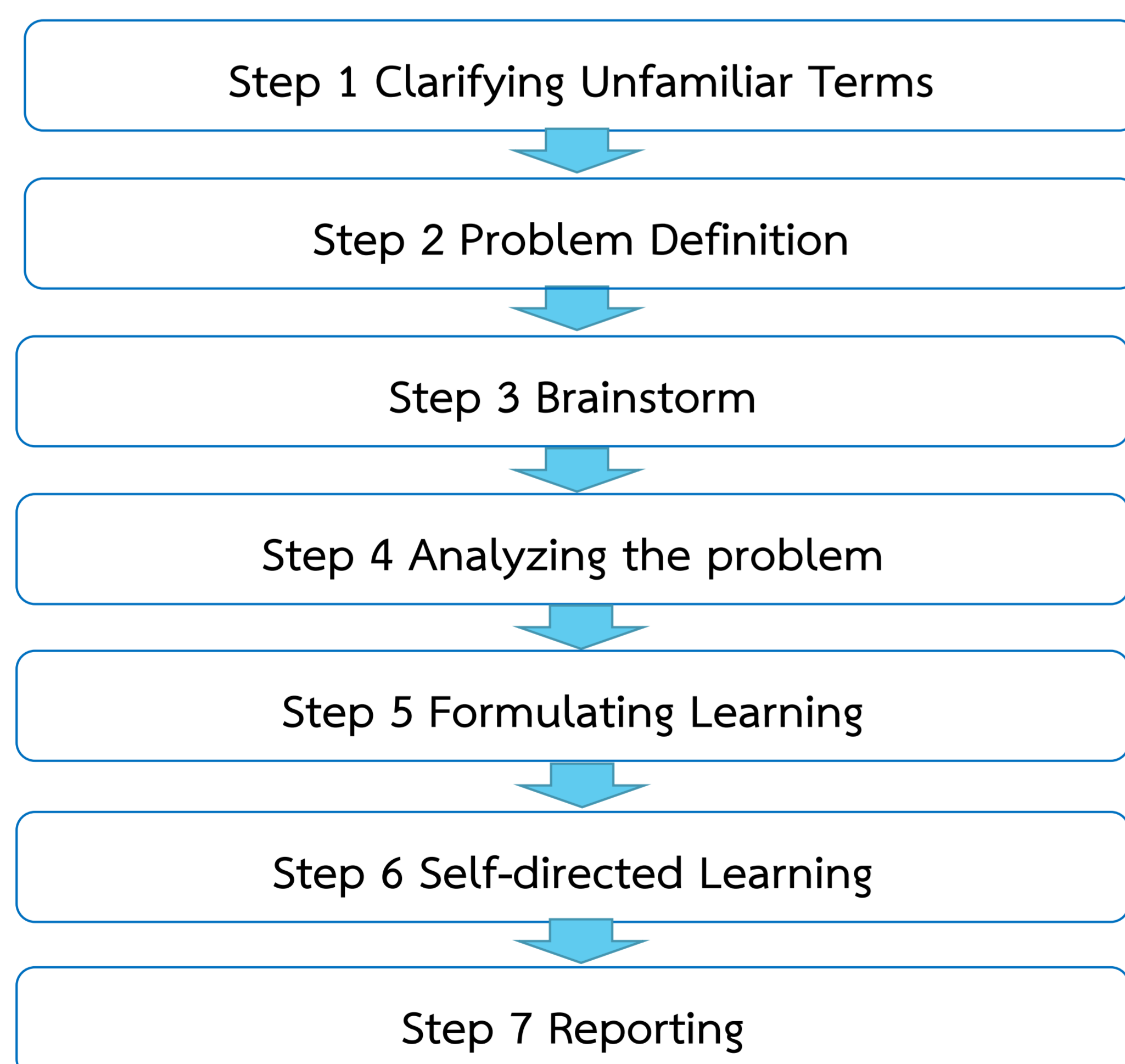
Objectives :

1. Students can solve the problem by discussion, literature research and background knowledge.
2. Students have critical thinking and creative thinking.
3. To contribute relaxing classroom.



<https://presentlygifted.weebly.com/problem-based-learning.html>

7 Steps of PBL:



Conclusions:

PBL learning makes students have critical thinking and creative thinking. Students have skills in teamwork, leadership, improve communication skills (such as eye contact), reducing shyness, and also creating more fun in the classroom.

From the introduction of PBL learning in Marine Science program for 7 years, it has been observed that students are more enthusiastic about learning. Students can create media for presentation well, can search academic articles from reliable sources and have a good presentation, etc. I believe that PBL helps students to learn better.

Results :

Students strongly agree that PBL learning helps develop student's skills such as better learning, Leadership, Teamwork, trained to search for information from various sources, communication skill, etc. (Table1)

Table : 1 The results of the PBL learning (N=22)

PBL Learning	Mean	SD	Interpret
1. Better understand the lesson and have an enthusiasm for learning.	4.68	±0.47	Strongly agree
2. Teamwork, leadership and good followers.	4.45	±0.50	Strongly agree
3. Develop thinking processes, analyze, plan and work systematically.	4.73	±0.45	Strongly agree
4. Students are trained to search for information from various sources.	4.86	±0.34	Strongly agree
5. Assertive and good personality.	4.50	±0.50	Strongly agree
6. Have skills in preparing media for presentation.	4.91	±0.29	Strongly agree
7. Students can solve immediate problems.	4.59	±0.49	Strongly agree
8. Develop communication skills	4.68	±0.47	Strongly agree
9. Have a good time Management.	4.45	±0.50	Strongly agree
10. Relax, have fun and have a good attitude towards the course.	4.77	±0.42	Strongly agree

- I feel relaxed when in the PBL Classroom .
- I feel that it is not shallow when I have to come out to present the class. Because I practice this often.
- I feel that finding information is easy.
- I have more creative ideas.



References :

Duch, B. J., Groh, S. E., & Allen, D. E. (Eds.). (2001). The power of problem-based learning. Sterling, VA: Stylus. Project Based Learning. Retrieved from :<https://presentlygifted.weebly.com/problem-based-learning.html>. 04 May 2019.