

## PROBLEM -BASED LEARNING

This exercise aligns with the principles of Problem-Based Learning (PBL), a pedagogical approach developed by Howard Barrows in the 1960s. PBL emphasizes learning through the process of solving real-world problems, encouraging students to develop problem-solving skills, collaborate with peers, and engage in self-directed learning.

Larger Objectives:

Through this exercise, students learn to:

- Recognize problems within their immediate environment.
- Analyze the root causes and explore viable solutions.
- Question and critically evaluate each other's ideas in a constructive manner.
- Develop the ability to frame problems as questions, which aids in deeper exploration and understanding.

Time	Activity	Objective/Directive
10 Minutes	<p>Take this time to settle the class down. Rely on the conversation you had in the last class about the nature of Critical Thinking. Ask them what they remember.</p> <p>Get them to remember all the 5 markers that had been mentioned in the previous class.</p>	<p>This form of repeating the broad objectives of the course allows for a more meaningful absorption of different/new ideas that they are being introduced to.</p>
15 Minutes	<p>Depending on the number of students present within the classroom, divide them into groups of 3-4.</p> <p>Try to experiment as much as you can with respect to these groupings. Please feel free to shuffle students across the classroom.</p> <p>Once this is complete, ask each group to come up with a problem that they see taking place within their immediate surroundings (School, locality, city, etc).</p> <p>Ask them to use this particular format -</p>	<p>This is the first step towards forming a collaborative setup, and something that helps them identify and vocalise a problem.</p> <p>The format given below is one of many that allows individuals to articulate their process of thinking, as well as place the results on a clear frame.</p>

	i) The Problem. ii) The Potential Cause of Said Problem. iii) Two Possible Solutions to Said Problems. iv) Phrase the Problem as a Question.	
15 Minutes	<p>You will only be able to deal with a maximum of two groups within this time section. This activity will automatically carry over to the next period you have with them.</p> <p>Pick one group at random and ask them to read out their response to the entire class. Everyone else will have to play the devil's advocate. This would mean that they will be posing a question at every juncture (i, ii, iii, and iv)</p> <p>For instance, possible questions for (i) could be - Is this a problem at all? What is so unique about this problem? Does it not present itself anywhere else?</p>	<p>This needs to be continued throughout the next class till every group has been given the opportunity to express their workings/problem solving methods.</p> <p>Your role within this setup is that of a navigator. Please remember to keep a strong eye on who is saying what - no one should deliberately be hurtful, mean, or dismissive of other individuals.</p> <p>It will also provide you with clarity with respect to classroom dynamics.</p>

Some problem situations are given below. (The educator can hint at something similar but not entirely give it away, if the students are not able to bring out issues)

### 1. School-Related Issues

- **Problem:** Unfair distribution of school resources.
  - **Potential Cause:** Favoritism or lack of awareness of needs.
  - **Solutions:** Conduct a needs assessment; involve students in resource allocation.
  - **Reframed as a Question:** How can we ensure a fair distribution of school resources?
- **Problem:** Disruptions during class.
  - **Potential Cause:** Lack of discipline or unengaging lessons.
  - **Solutions:** Implement stricter classroom rules; create more engaging lessons.
  - **Reframed as a Question:** How can we reduce disruptions in the classroom?

### 2. Local Community Issues

- **Problem:** Vandalism in public spaces.
  - **Potential Cause:** Lack of community pride or insufficient security.

- **Solutions:** Create community watch groups; start a mural project.
- **Reframed as a Question:** How can we prevent vandalism in our community?
- **Problem:** Water shortage during certain times of the year.
  - **Potential Cause:** Drought or outdated water systems.
  - **Solutions:** Promote water conservation; engage with authorities for better water management.
  - **Reframed as a Question:** How can we manage water resources better in our community?

### 3. Environmental Concerns

- **Problem:** Excessive plastic use in school.
  - **Potential Cause:** Lack of awareness or convenience of plastic.
  - **Solutions:** Promote reusable containers; educate on the impact of plastic waste.
  - **Reframed as a Question:** How can we reduce plastic use in our school?
- **Problem:** Air pollution from nearby factories.
  - **Potential Cause:** Lack of regulations or enforcement.
  - **Solutions:** Advocate for stricter regulations; plant more trees to combat pollution.
  - **Reframed as a Question:** How can we reduce air pollution from nearby factories?

### 4. Social Issues

- **Problem:** Bullying through social media.
  - **Potential Cause:** Lack of monitoring or education on responsible online behavior.
  - **Solutions:** Implement digital literacy programs; create reporting mechanisms.
  - **Reframed as a Question:** How can we prevent and address cyberbullying in our school?
- **Problem:** Gender stereotyping in class activities.
  - **Potential Cause:** Cultural norms or lack of awareness.
  - **Solutions:** Promote gender-neutral activities; educate on the impact of stereotypes.
  - **Reframed as a Question:** How can we challenge and change gender stereotypes in our school activities?