



4.2 Activity Self Assessment Problem Solving Techniques

**Select the correct
answer:**

1. I regularly use a variety of problem-solving techniques (e.g., brainstorming, role-playing, group discussions) to help students approach challenges in different ways.

- Yes
- No
- Sometimes

2. I actively encourage students to identify problems and develop



2. I actively encourage students to identify problems and develop solutions independently before offering my guidance.

- Yes
- No
- Sometimes

3. I model problem-solving strategies by thinking aloud and demonstrating the steps I take to solve a problem during lessons.

- Yes
- No
- Sometimes

4. I create opportunities for students to collaborate in solving problems, promoting

4. I create opportunities for students to collaborate in solving problems, promoting teamwork and shared problem-solving responsibility.

- Yes
- No
- Sometimes

5. I use real-world problems and scenarios in my lessons to help students apply problem-solving skills to practical, everyday situations.

- Yes
- No
- Sometimes

6. I encourage students to



6. I encourage students to evaluate different solutions, discussing the pros and cons of each before deciding on the best course of action.

- Yes
- No
- Sometimes

7. I allow students to experiment with multiple approaches to a problem and learn from their mistakes in a supportive environment.

- Yes
- No
- Sometimes

8. I provide opportunities for students to reflect on their



8. I provide opportunities for students to reflect on their problem-solving processes, discussing what strategies worked and what could be improved.

- Yes
- No
- Sometimes

9. I differentiate problem-solving tasks based on the varied learning styles and needs of my students, ensuring everyone can engage with the activity.

- Yes
- No
- Sometimes

10. I assess and adapt my



Sometimes

10. I assess and adapt my teaching strategies based on student feedback and my own reflections to improve how I teach problem-solving.

- Yes
- No
- Sometimes

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What is the main problem that needs to be solved? What are the possible solutions to this problem?

8:28 pm ✓✓

The main problem facing society today is the growing mismatch between rapid technological change and our ability to manage its social, economic, and ethical impacts. As automation, AI, and digital systems accelerate, they create challenges in employment, privacy, inequality, and governance. Possible solutions include investing in education and reskilling, developing clear and responsible technology regulations, promoting ethical AI practices, strengthening digital literacy, and ensuring equitable access to technological benefits. Collaboration among governments, industries, and communities is essential to balance innovation with societal wellbeing.

8:29 pm ✓✓

⇒ Forwarded

How could the characters have worked together to preserve the bridge and find a solution that benefited everyone involved?

8:35 pm ✓✓

⇒ Forwarded

The characters could have collaborated by openly discussing the bridge's importance and the potential consequences of its damage. By listening to each other's concerns, they could brainstorm creative solutions, such as repairing the bridge collectively, sharing responsibilities, or finding alternative routes temporarily. Compromises and mutual respect would help balance individual needs with the community's interests. They might have also sought expert advice or pooled resources to strengthen the structure. Through teamwork, communication, and shared problem-solving, they could preserve the bridge while ensuring safety and fairness, turning a potential conflict into an opportunity for cooperation and lasting benefit for all.

8:35 pm ✓✓

↪ Forwarded

What might have happened if the characters had approached the situation with a collaborative mindset instead of a competitive one?

8:37 pm ✓✓

↪ Forwarded

If the characters had approached the situation collaboratively rather than competitively, the outcome would likely have been more positive and efficient. They could have shared ideas, resources, and responsibilities, finding a solution that addressed everyone's needs. Conflicts and misunderstandings would have been minimized, fostering trust and respect among them. By combining their strengths and perspectives, they might have discovered innovative ways to preserve the bridge and prevent future problems. Cooperation could have strengthened relationships and built a sense of community, turning a potential confrontation into a productive, mutually beneficial experience that emphasized teamwork, shared goals, and collective success.

8:37 pm ✓✓

➡ Forwarded

How did the character's emotional responses, anger, frustration, hinder their ability to think critically and solve the problem?

8:38 pm ✓✓

➡ Forwarded

The character's anger and frustration clouded their judgment, making it difficult to analyze the situation objectively. Emotional reactions likely led to impulsive decisions, focusing on personal grievances rather than practical solutions. Their frustration may have caused them to ignore important information, overlook alternative options, or dismiss others' ideas, reducing collaboration. Strong emotions can also escalate conflicts, creating tension that distracts from problem-solving. Instead of evaluating the problem logically and considering long-term consequences, their responses likely intensified the challenge, slowed progress, and prevented them from reaching a fair, effective solution that balanced everyone's needs.

8:38 pm ✓✓

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What alternative problem-solving techniques like brainstorming or trial and error could have helped the characters come up with a creative solution?

8:40 pm ✓✓

Alternative problem-solving techniques could have helped the characters generate more effective solutions. Brainstorming would allow them to freely share ideas without judgment, encouraging creativity and collaboration. Trial and error could help them test different approaches, learning from mistakes to refine their strategy. Mind mapping might help organize thoughts and explore connections between options, while role-playing could let them anticipate challenges and outcomes. Collaborative discussion would combine diverse perspectives, leading to innovative compromises. Using these techniques, the characters could move beyond conflict, consider multiple possibilities, and develop a practical, creative solution that preserved the bridge and satisfied everyone... **Read**

more

8:41 pm ✓✓

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What initial problem-solving strategies could the characters have used to resolve the bridge dilemma before tensions escalated?

8:42 pm ✓✓

Before tensions escalated, the characters could have employed several initial problem-solving strategies to address the bridge dilemma. Active listening would help them understand each other's perspectives and concerns. Clarifying the problem by identifying the bridge's risks and priorities could focus their efforts on practical solutions. Generating multiple options through brainstorming or group discussion would encourage creativity and avoid rushed decisions. Setting common goals could align their actions toward preserving the bridge. Evaluating potential consequences of each option would allow them to make informed choices. By applying these strategies early, they could have prevented conflict, promoted cooperation, and found a fair, effective solution.

8:43 pm ✓✓

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What are the key takeaways you gained from this video?

8:52 pm ✓✓

⇒ Forwarded

Active listening would help them understand each other's perspectives and concerns. Clarifying the problem by identifying the bridge's risks and priorities could focus their efforts on practical solutions. Generating multiple options through brainstorming or group discussion would encourage creativity and avoid rushed decisions. Setting common goals could align their actions toward preserving the bridge. Evaluating potential consequences of each option would allow them to make informed choices. By applying these strategies early, they could have prevented conflict, promoted cooperation, and found a fair, effective solution.

8:52 pm ✓✓

These problem-solving skills can be applied in the classroom by creating activities that encourage critical thinking, collaboration, and creativity. Teachers can use group projects where students brainstorm solutions to real-world problems, promoting teamwork and idea sharing. Role-playing and simulations help students anticipate challenges and evaluate consequences. Encouraging reflection and discussion allows them to analyze different approaches and learn from mistakes. Using trial and error in experiments or projects teaches persistence and adaptability. By fostering an environment where students actively explore, evaluate, and implement solutions, teachers can develop their analytical, decision-making, and collaborative skills, preparing them for real-li... [Read more](#)

⇒ Forwarded

Based on your reflections, write at least three actionable steps you can take to implement problem-solving skills in your classroom?

8:57 pm ✓✓

To implement problem-solving skills in the classroom, I can take three actionable steps. First, incorporate collaborative projects where students work in teams to identify problems, brainstorm solutions, and present their findings, fostering critical thinking and cooperation. Second, use real-world scenarios and simulations, allowing students to apply trial-and-error methods, analyze outcomes, and adapt strategies, enhancing decision-making and creativity. Third, facilitate structured reflection sessions after tasks, encouraging students to evaluate their approaches, discuss challenges, and learn from mistakes. These steps create an interactive learning environment where students actively develop analytical, adaptive, and collaborative problem-solving skills for practical situations.

8:58 pm ✓✓

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After Watching the video take a few minutes to reflect on the following question?

9:04 pm ✓✓

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After watching the video, I reflected on how conflict can escalate when individuals focus on personal emotions rather than shared goals. The situation showed that cooperation, active listening, and calm communication are essential in solving problems effectively. When characters allowed frustration to guide their actions, solutions became harder to reach, but when they adopted empathy and collaboration, progress was possible. The video reinforced the idea that problem-solving is not just about fixing an issue, but also about building understanding, respecting perspectives, and working toward a common purpose. It highlighted that creativity and teamwork lead to stronger, more sustainable outcomes.

9:04 pm ✓✓

For lesson analysis, evaluate the selected lesson to determine how it integrates problem-solving techniques. Look for opportunities where students are actively engaged in analyzing, synthesizing, and applying information from the lesson content?

9:06 pm ✓✓

The selected lesson effectively integrates problem-solving techniques by encouraging students to actively analyze the situation, identify challenges, and propose solutions. Students are not only recalling information but also evaluating consequences, comparing viewpoints, and applying prior knowledge to the bridge dilemma. Collaboration tasks allow them to brainstorm, negotiate roles, and test ideas, demonstrating synthesis of information rather than passive learning. Through guided questioning, students reflect on their decisions and revise responses, showing adaptive thinking. Overall, the lesson shifts from simple content delivery to interactive, student-centered inquiry, where learners practice real-world problem-solving skills, creativity, and critical analysis throughout the activity.

9:06 pm ✓✓

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Problem solving Opportunities

Assess whether the lesson encourages students to approach the material with a solution-oriented mindset where they need to break down the task, gather evidence, and think through possible solutions?

9:09 pm ✓✓

The lesson clearly promotes a solution-oriented mindset by guiding students to break down the dilemma, identify key factors, and consider multiple perspectives before acting. Students are encouraged to gather evidence, such as observing the bridge's condition or discussing characters' motivations, which helps them make informed decisions rather than emotional reactions. They analyze causes, evaluate risks, and propose practical solutions, demonstrating real problem-solving behavior. Instead of simply receiving answers, learners must think critically, justify their reasoning, and revise ideas when needed. This structured approach supports independent thinking, collaborative decision-making, and the development of analytical skills essential for real-life problem solving.

9:09 pm ✓✓

➔ *Forwarded*

Debate whether they provide sufficient opportunities for students to evaluate, innovate, or synthesize ideas?

9:11 pm ✓✓

Yes, the lesson provides sufficient opportunities for students to evaluate, innovate, and synthesize ideas. Students are asked to assess the situation from multiple viewpoints, which strengthens their ability to evaluate evidence and consequences. Through brainstorming and collaborative tasks, they are encouraged to innovate, generating alternative solutions rather than relying on a single answer. The lesson also requires students to synthesize information by combining characters' motivations, environmental conditions, and possible outcomes to create a workable plan. This blend of reflection, discussion, and creative thinking ensures that learners move beyond recall and actively construct meaningful, well-reasoned solutions to the problem presented.

9:12 pm ✓✓

What are the key takeaways you gained from this video? Think about the strategies we discussed and consider how they align with your current teaching approach?

9:21 pm ✓✓

The key takeaways from the video highlight the importance of collaboration, emotional regulation, and structured problem-solving. The characters' difficulties showed how frustration can block logical thinking, reinforcing the need to teach students calm communication and empathy. The strategies—brainstorming, analyzing causes, evaluating options, and trial and error—align well with my teaching approach, which emphasizes participation, reflection, and real-world decision-making. The video reminded me to create learning spaces where students feel safe to share ideas, experiment, revise mistakes, and work collectively. Ultimately, effective problem-solving is not just fixing issues but guiding students toward thoughtful, cooperative, and innovative thinking.

9:21 pm ✓✓

➡ Forwarded

How can you apply these problem-skills in your classroom to help your students think critically, work through challenges, and develop their problem-solving abilities?

9:25 pm ✓✓

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I can apply these problem-solving skills by creating a classroom environment where students analyze situations, explore options, and justify their choices. Group tasks and real-life scenarios will help them practice teamwork, listening, and negotiation. I will encourage brainstorming and trial-and-error activities, allowing students to test ideas and learn from outcomes rather than fear mistakes. Reflection discussions will help them evaluate decisions and adjust strategies. By modeling calm communication and guiding students to break problems into smaller steps, I can support critical thinking, confidence, and resilience, enabling them to approach challenges with creativity and a solution-focused mindset.

9:25 pm ✓✓

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Reflect on your practice and think in what ways problem solving applies to real-world scenarios?

9:32 pm ✓✓

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Problem-solving applies directly to real-world scenarios because life constantly presents challenges that require decision-making, analysis, and adaptability. In daily situations—such as managing conflicts, planning tasks, or making responsible choices—students must evaluate options, anticipate consequences, and communicate effectively. By practicing problem-solving in the classroom, they learn how to stay calm, collaborate, and think logically rather than react emotionally. These skills prepare them to handle future academic, social, and professional tasks, from resolving disagreements to organizing projects or adapting to unexpected obstacles. Ultimately, problem-solving nurtures independence, resilience, and confidence, enabling students to navigate real-life situations thoughtfully and responsibly.

9:32 pm ✓✓

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What strategies do you use when you encounter a problem? Are there particular methods like trial and error, brainstorming, or systematic analysis that work best for you?

9:34 pm ✓✓

When I encounter a problem, I typically begin with systematic analysis, breaking the issue into smaller parts to understand the root cause. Then, I brainstorm possible solutions, considering different perspectives and weighing potential outcomes. If the situation is unclear, I use trial and error to test ideas and refine my approach based on feedback and results. I also rely on reflection, reviewing what worked and what didn't to avoid repeating mistakes. This combination of careful evaluation, creativity, and adaptability helps me think clearly, make informed decisions, and move toward effective, practical solutions in both academic and real-life challenges.

9:35 pm ✓✓

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How do tools and technology support problem solving today? What role do you think emerging technologies will play in future problem solving?

9:36 pm ✓✓

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Today, tools and technology support problem-solving by providing quick access to information, data analysis, simulation tools, and collaborative platforms. Students and professionals can test ideas, visualize outcomes, and communicate globally in real time. Technology reduces time spent on basic tasks, allowing more focus on creative and critical thinking. In the future, emerging technologies—like AI, virtual reality, and advanced data modeling—will deepen problem-solving by offering predictive insights, immersive practice environments, and personalized support. These innovations will enable faster decision-making, more accurate solutions, and broader collaboration, helping individuals tackle complex global challenges with increased efficiency and innovation.

9:36 pm ✓✓

4.6 (A) Activity End Of Module Assessment

Select the correct answer:

1. Which of the following best describes the brainstorming technique in problem-solving?

- a) Trying different approaches until one works
- b) Gathering creative ideas from multiple individuals
- c) Breaking the problem down into smaller parts
- d) Working backward from the solution to identify steps

2. If a teacher is facing a problem where several students are not



2. If a teacher is facing a problem where several students are not understanding a lesson, what is the most suitable problem-solving strategy?

- a) Divide and conquer
- b) Trial and error
- c) Brainstorming
- d) Working backward

3. A teacher needs to solve a problem where students are not participating in class discussions. Which technique should the teacher use to identify the reasons and possible solutions?

- a) Trial and error
- b) Working backward
- c) Brainstorming

4. A teacher notices that some students consistently struggle with completing assignments on time. The teacher tries various methods, such as offering extra help, changing deadlines, and providing peer support, until one method works for the class. What problem-solving strategy is the teacher using?

- a) Divide and conquer
- b) Brainstorming
- c) Trial and error
- d) Working backward

5. A student is confused about a complex math problem. The teacher first gives the solution to the



5. A student is confused about a complex math problem. The teacher first gives the solution to the problem and then works backward through the steps, explaining how the solution was reached. Which problem-solving strategy is being applied?

- a) Trial and error
- b) Brainstorming
- c) Working backward
- d) Divide and conquer

6. A teacher is planning a class project that involves different tasks like researching, creating a presentation, and summarizing findings. The teacher divides these tasks





6. A teacher is planning a class project that involves different tasks like researching, creating a presentation, and summarizing findings. The teacher divides these tasks among students, giving them specific roles to focus on. What problem-solving approach is being used here?

- a) Trial and error
- b) Brainstorming
- c) Divide and conquer
- d) Working backward

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Describe how a teacher could use brainstorming to improve student engagement in a classroom activity?

9:50 pm ✓✓

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A teacher can use brainstorming to improve student engagement by creating an open, supportive environment where all ideas are welcomed without judgment. For example, before starting a classroom activity, the teacher can ask students to suggest topics, strategies, or solutions related to the lesson. This encourages participation from every student, sparks creativity, and allows quieter students to contribute. The teacher can record ideas on the board, group similar suggestions, and guide students in evaluating and selecting the most promising ones. By involving students in generating and shaping ideas, brainstorming increases ownership, motivation, and active engagement in the learning process.

9:50 pm ✓✓

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Explain why working backward can be an effective problem-solving technique in a classroom setting. Provide an example?

9:52 pm ✓✓

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Working backward is effective in a classroom because it helps students understand the steps needed to reach a solution by starting from the end goal. This method clarifies the logic and sequence required, making complex problems more manageable. For example, in a math lesson, a teacher could present the final answer to an equation and guide students to retrace the calculations step by step. This approach helps students see how each operation connects to the solution, strengthens reasoning skills, and builds confidence. It also encourages analytical thinking, as students must determine the necessary steps to achieve a known outcome.

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How can the divide and conquer technique help a teacher address individual learning needs in a diverse classroom?

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The divide and conquer technique helps a teacher address individual learning needs by breaking a larger task or lesson into smaller, manageable parts and assigning them based on students' strengths, interests, or skill levels. For example, in a group project, one student may focus on research, another on creating visuals, and another on presenting findings. This allows each student to engage with the material in a way that suits their abilities, promoting confidence and participation. By tailoring responsibilities, the teacher ensures that all learners contribute meaningfully, receive targeted support, and develop both individual skills and collaborative problem-solving abilities.

9:53 pm ✓✓

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What are the benefits of using trial and error as a problem-solving strategy in teaching?

9:55 pm ✓✓

Trial and error is beneficial in teaching because it encourages experimentation, persistence, and adaptive learning. Students learn to test different approaches, observe outcomes, and adjust strategies based on results, which builds critical thinking and resilience. It fosters a safe environment where mistakes are seen as learning opportunities rather than failures. This method helps students develop problem-solving skills, as they analyze what works and what doesn't, deepening their understanding of concepts. Trial and error also promotes creativity, as students explore multiple solutions, and encourages independence, empowering them to take initiative and responsibility for their learning outcomes.

9:56 pm ✓✓