

Workforce Preparation: Unmet Workplace Performance Outcomes Problem-Based Learning Lesson



Background: It is not unusual for workers to encounter problems in the workplace. Some problems are unavoidable; however, being given opportunities to have input into determining solutions can be beneficial and contribute to buy-in for workers. The purpose of this task is to present the students with opportunities to use problem-solving strategies to identify potential solutions to problems that may arise on the job. In this task, the students will use the IDEAL problem-solving strategy to uncover solutions to potential workplace problems.

NRS Level(s): Low to High Intermediate Basic Education, High Intermediate to Advanced ESL

<p>Problem Addressed: Unmet Workplace Performance Outcomes</p>	<p>Approximate Instruction Time: 90 minutes</p>
<p>Instructional Objective <i>(written in teacher language primarily derived from content standards and includes evidence of mastery):</i></p> <p>At the conclusion of this task, the students will be able to:</p> <ul style="list-style-type: none"> • Identify and demonstrate communication skills that are useful in problem solving. • Identify and demonstrate interpersonal skills that are useful in problem solving. • Identify and demonstrate critical-thinking skills that are useful in problem solving. • Define problem solving. • Define the IDEAL method of problem solving and engage in problem solving using this strategy. 	<p>Learning Target Statements <i>(written in student-friendly language and helps learners reflect on what they are able to do as a result of the lesson) for learners' exit tickets, learning logs, or reflection:</i></p> <p>Context objectives:</p> <ul style="list-style-type: none"> • I can apply the IDEAL process to <ul style="list-style-type: none"> – intentionally analyze a difficult workplace situation to determine the problem – develop an understanding of the problem and the desired outcome or goal – explore solutions or strategies to resolve the problem – anticipate the outcomes of my solutions and act on the best one – look back on my process to identify what I learned

	<p>Language objectives:</p> <ul style="list-style-type: none"> • I can listen and take notes on a video lecture (The Ideal Process). • I can clearly express and support my suggestions for solving a problem. • I can use language that demonstrates my critical thinking when I problem solve. • I can demonstrate interpersonal skills such as flexibility, teamwork, and empathy when collaborating with my classmates. 	
<p>ELA/Mathematics/ELP Standard(s) Addressed:</p>	<p>Main Standards Addressed:</p> <p>CCR Level D:</p> <p>S/L1: Pose questions and respond to others with relevant evidence, observations, and ideas. S/L4: Present claims in a focused, coherent manner with relevant evidence.</p> <p>ELPS Levels 4 and 5:</p> <p>ELPS 1: Determine central ideas or themes in oral presentations. ELPS 2: Participate in extended discussions. Express self clearly and persuasively.</p>	
<p>Central Skills Taught:</p>	<p><input type="checkbox"/> Adaptability and Willingness to Learn</p> <p><input checked="" type="checkbox"/> Communication</p> <p><input checked="" type="checkbox"/> Critical Thinking</p> <p><input checked="" type="checkbox"/> Interpersonal Skills</p> <p><input checked="" type="checkbox"/> Navigating Systems</p>	<p><input type="checkbox"/> Problem Solving</p> <p><input checked="" type="checkbox"/> Processing and Analyzing Information</p> <p><input type="checkbox"/> Respecting Differences and Diversity</p> <p><input checked="" type="checkbox"/> Self-Awareness</p>



<p>Language Demands: (Include academic language, language skills, etc.)</p>	<p>Key terms from the video and the IDEAL process: <i>anticipate, daydreaming, mental escape, nonroutine, novel, strategies</i></p> <p>Employ modals to prompt discussion and collaboration while exploring solutions and their outcomes:</p> <ul style="list-style-type: none"> • How could the boss, manager, or employee(s) handle the situation? • What might happen if s/he/they ...? <p>Use phrases to introduce the thinking process:</p> <ul style="list-style-type: none"> • After careful consideration, • After weighing the pros and cons, • In looking at the data, we think ... • We've evaluated the solutions and believe ... • After examining the outcomes, it's clear that ... 		
<p>Assessing Mastery of the Objective(s) and Central Skills: (Indicate <u>when</u> and <u>how</u> assessment—formative and/or summative—will occur during the lesson.)</p>	<p>Proof of Learning:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Via observation of a team task (e.g., discussion, work on project) <input type="checkbox"/> Via team self-assessment <input type="checkbox"/> Via individual self-assessment <input checked="" type="checkbox"/> Via team product <input checked="" type="checkbox"/> Via individual product <input type="checkbox"/> Other _____ 	<p>Proof of Learning Tools:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Rubric <input type="checkbox"/> Checklist <input type="checkbox"/> Quiz <input checked="" type="checkbox"/> Other IDEAL worksheet 	<p>Ongoing Formative Assessment</p> <ul style="list-style-type: none"> <input type="checkbox"/> Nonverbal responses to comprehension questions (e.g., answer cards, Kahoot) <input type="checkbox"/> Peer-to-peer quizzing <input type="checkbox"/> Exit/admit tickets <input type="checkbox"/> KWL charts <input checked="" type="checkbox"/> Other <u>IDEAL Problem-Solving</u>



<p>Adaptations and/or Accommodations:</p> <p><i>(How will you increase access to the content of the lesson? Identify differentiation strategies.)</i></p>	<p>For learners with limited language proficiency, begin with a language experience story or ready-made beginning-level text about a workplace problem.</p> <ul style="list-style-type: none"> Once you've checked learners' comprehension of the oral text, provide a simple lecture on the IDEAL problem-solving process without the acronym. Review the Appendix A worksheet with learners to check their comprehension of the language. Have teams take the problem scenario (the learners' story or the ready-made story) through the IDEAL process, stopping between steps to check in and respond to learners' questions or comments. Shorten the report back frame to three or four sentences and have team presenters rotate through the room. Alternatively, do the entire process as a whole class. 		
<p>Build understanding of problem-based learning.</p> <p>Warm up to the topic or issue at hand.</p> <p><u>Role of the teacher:</u></p> <p>Preteach.</p> <p><i>Make sure the students understand the goals and benefits of a problem-based approach for language. If this is an English language acquisition class, emphasize the areas of English that are developed in problem-solving activities.</i></p> <p>Timing: 5 minutes</p>	<p>Facilitator Preparation</p> <p>Prior to class, the teacher should</p> <ul style="list-style-type: none"> Review the definitions of the <i>skills that matter</i> (communication, interpersonal, and critical thinking). Define brainstorming and mediator. Become familiar with the IDEAL strategy for problem solving by reading <i>The Ideal Workplace: Strategies for Improving Learning, Problem Solving, and Creativity</i> (http://eric.ed.gov/?ID=ED424409). Review the IDEAL YouTube video (https://youtu.be/OE9oGjhqNWA). <p>The teacher can begin the task by reviewing the skills that matter (communication, interpersonal, and critical thinking).</p> <p>The teacher can define problem solving. One simple definition is that problem solving is the use information that we already know to discover something that we don't know.</p>	<p>CENTRAL SKILLS</p> <ul style="list-style-type: none"> Communication Interpersonal skills 	<p>MATERIALS</p> <ul style="list-style-type: none"> Flip chart Markers



<p>Meet the problem.</p> <p><u>Role of the teacher:</u></p> <p>Introduce problem and vocabulary.</p> <p><i>Introduce the students to the problem using pictures, video, or texts. Ask the students about previous personal experiences with the problem. Introduce vocabulary related to the problem. Provide prereading/previewing exercises about the problem.</i></p> <p><i>These can be preselected problems chosen by the teacher based on learner needs; alternatively, facilitate a process of learner-chosen problems.</i></p> <p>Timing: 40 minutes</p>	<p>The teacher can ask the class for examples of problems that they solve on a routine basis and problems that they encounter that are difficult to solve. The teacher should not ask the students how they solve these problems but rather just ask what the problems are.</p> <p>The teacher can make a list of these problems on the board or a flip chart to revisit throughout the activity.</p> <p>The teacher should present problem-solving strategies and techniques to the students. Possible strategies include trial and error, brainstorming, and insight.</p> <p>The teacher asks the students how they solve problems that they encounter. The teacher can refer to specific examples on the list developed earlier. To continue and enhance this discussion, the teacher can ask thought-provoking questions like the ones below. Prior to asking these questions, the teacher should define any words that may be problematic (<i>brainstorming, mediator</i>).</p> <ul style="list-style-type: none"> • What does the statement “Two heads are better than one” mean with regard to problem solving? • Have you ever tried to solve a problem using the brainstorming technique? • How flexible are you on controversial issues? • Have you ever played the role of mediator? Has anyone ever played the role of mediator for you in some situation? How did it work? 	<ul style="list-style-type: none"> • Communication • Critical thinking • Navigating systems • Processing and analyzing information 	<ul style="list-style-type: none"> • Flip chart paper • Markers • Laptop • Projector • Screen
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**Meet the problem
(continued)**

The teacher introduces the IDEAL strategy for problem solving. The teacher shows the video found at <https://youtu.be/OE9oGjhqNWA> and follow the video with a discussion about each step of IDEAL. Review the bacon grease example in the video and reinforce each step of the IDEAL strategy:

- INTENTIONALLY attempt to IDENTIFY the problem and treat it as an opportunity.
- DEVELOP an understanding of the problem and DEFINE your goals.
- EXPLORE possible strategies and EVALUATE how they fit your goals.
- ANTICIPATE and then ACT.
- LOOK back and LEARN.°

The teacher provides additional examples of problems and use the IDEAL method to work through potential solutions as a large-group activity. For each phase of IDEAL, ask the students thought-provoking questions:

- I—What is the problem? Create a sentence or two to identify the problem.
- D—What do we know about this problem? Create a sentence or two to define the problem.
- E—What are some potential solutions to this problem? Create a sentence or two to explore solutions to the problem.
- A—How can the chosen solution be enacted to avoid possible barriers? Create a sentence or two to describe how the solution to the problem should be carried out.
- L—What have we learned from this problem-solving activity? Create a sentence or two to describe the lessons learned.



	<p>Next, the teacher tells the students that they will be participating in role-play activities that will provide them with opportunities to practice skills that matter (communication, interpersonal, and critical thinking) using the IDEAL problem-solving strategy. It is important that the introduced skills be called out so that the students better understand these skills, how they may present themselves in the workplace, and how they can be transferred to other workplace and nonworkplace situations.</p> <p>The teacher presents the class with a workplace situation that requires ideas for a solution. Examples include “unmet workplace performance expectations” and “late return of workers from breaks.”</p>		
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<p>Explore knowns and unknowns.</p> <p><u>Role of the teacher:</u></p> <p>Group students and provide resources.</p> <p><i>Make sure that the students understand the problem and what is expected of them. Emphasize that there is no single answer or solution and that they need to choose what appears to be the most viable solution to them and be prepared to explain why they chose that solution. Group the students according to their strengths. As with project-based learning, learners can take on different roles based on their strengths.</i></p> <p><i>Provide access to resources such as the internet, books, magazines, brochures, newspapers, television, and community experts. Make sure that the students are aware of the range of resources available and know how to use them. Encourage the students to draw on materials in their first language and materials that present different viewpoints.</i></p> <p>Timing: 5 minutes</p>	<p>The teacher divides the class into groups of three or four students and instructs them to use the IDEAL problem-solving strategy to develop potential solutions to the problems. Using the problems in the previous step or other teacher-made examples, each group develops its own description of one problem. Students use the IDEAL Problem Solving Worksheet (Appendix A) to record their actions.</p> <p>The teacher informs students that they need to come up with a response for each step of the IDEAL process and be prepared to present it to the class. In addition, students will need to explain where the skills that matter (communication, interpersonal, and critical thinking skills) are integrated into their work and their responses. The teacher asks each small group to select a presenter that will share their answers.</p>	<ul style="list-style-type: none"> • Critical thinking • Interpersonal skills • Processing and analyzing information 	<ul style="list-style-type: none"> • IDEAL Problem Solving Worksheet (Appendix A)
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<p>Provide language supports for the students.</p> <p><u>Role of the teacher:</u></p> <p>Provide language frames the students may need (e.g., frames for stating a problem or proposing a solution). Provide planning tools (e.g., graphic organizers) for working through the problem and coming up with solutions.</p> <p>Timing: 5 minutes</p>	<p>Provide scaffolds for planning and supports for language, considering the register needed when presenting ideas:</p> <p>Problem: _____</p> <p>We've identified a problem in the workplace.</p> <p>This is a problem because _____</p> <p>There is evidence to suggest that _____</p> <p>We found that _____</p> <p>Data suggest that _____</p> <p>Possible solutions: _____</p> <p>One thing that could be done is _____</p>	<ul style="list-style-type: none"> • Communication 	<ul style="list-style-type: none"> • IDEAL Problem Solving Worksheet (Appendix A) • Pencils
<p>Generate possible solutions. Consider consequences and choose the most viable solution.</p> <p><u>Role of the teacher:</u></p> <p>Observe and support.</p> <p><i>Observe the students and provide support as needed, but do not attempt to direct their efforts or control their activity in solving the problem. Observe, take notes, and provide feedback on student participation in the activity and on language used during the activity.</i></p> <p>Timing: 15 minutes</p>	<p>The students follow the IDEAL process to identify two or three solutions.</p> <p>The teacher observes while the students are developing plans, reminds them of the language supports provided, and assists with finding resources, as needed.</p>	<ul style="list-style-type: none"> • Communication • Critical thinking • Processing and analyzing information • Self-awareness 	<ul style="list-style-type: none"> • IDEAL Problem Solving Worksheet (Appendix A) • Pencils



<p>Follow up and assess progress.</p> <p><u>Role of the teacher:</u></p> <p>Provide the students with opportunities to present and share the results of their work. Provide follow-up activities based on your observations and possibly provide instruction on grammar, academic language, pronunciation, or pragmatic issues. Assess the students' participation in the activity and level of success and provide opportunities for peer assessment.</p> <p>Timing: 20 minutes</p>	<p>The presenter from each group shares the team's responses.</p> <p>Debrief using reflective questions such as these:</p> <ol style="list-style-type: none"> 1. What did you learn about yourself during this problem-solving activity? 2. Did you use communication, interpersonal, and critical thinking skills while participating in this activity? 3. Which skills might need improvement? How do you know? 	<ul style="list-style-type: none"> • Self-awareness 	<ul style="list-style-type: none"> • IDEAL Problem Solving Worksheet (Appendix A) • Pencils
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Note. Recommended steps for problem posing adapted from [Problem-Based Learning and Adult English Language Learners](#), by J. Mathews-Aydinli, 2007, Center for Adult English Language Acquisition, Washington, D.C.

^a *Exploring Work-Based Foundation Skills in the ABL Classroom: Instructional Activities and Resources for Adult Learners*, by P. S. Carman, K. Hamilton, S. Webster, & M. K. Williams, 2004, Institute for the Study of Adult Literacy, University Park, Pennsylvania.

^b *Ibid.*

^c *The Ideal Workplace: Strategies for Improving Learning, Problem Solving, and Creativity*, by J. Branson, A. Haynes, B. Stein, and X. Lin, 1998. Retrieved from <http://eric.ed.gov/?ID=ED424409>



Appendix A. IDEAL Problem Solving Worksheet

State the Problem

Using the IDEAL strategy for problem solving, provide one or two sentences to address each step of IDEAL. Include examples of where and how the skills that matter (communication, interpersonal, and critical thinking) are integrated into your responses.

IDEAL		Skills that matter
I	Identify—What is the problem?	
D	Develop—What do you know about this problem?	
E	Explore—What are some potential solutions to this problem?	



IDEAL		Skills that matter
A	Anticipate—What are potential barriers to enacting the solution?	
L	Learn—What did you learn from this procedure?	

