



Welding Scenarios

Student Workbook



Name: _____

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Problem-solving

Scenario

Scenario: You just started working for a small company building agricultural equipment. Gary has worked for the company since the 90s and is considered one of the veterans of the shop. You have been placed to train with him for four weeks. The first week is great as you learn a tremendous amount of new stuff. Gary also challenges you by making you interpret the blueprints, load the jigs and fixtures, and explain how you would assemble the parts he is working on. During down times, you practice your welding to prove your skills to Gary. On week two, you begin welding on production parts, and Gary tells you to disregard the weld callouts on the blueprints and just weld everything solid and that “big welds are better than those dumb engineers and their small welds.” Later that day, your boss pulls you aside and tells you, “Learn everything you can from Gary, but disregard what he tells you about welding. We know you went to school, so you know what to do.”

Points of view to consider:

You

Your boss

Gary

Answer the following key questions:

1. How do you handle the next three weeks of training that you will be going through with what the boss just told you?
2. Should you seek further clarification from your boss?
3. After you move into your own welding area, do you think you will disregard Gary's advice? Will this cause conflict when Gary stops in to check on how you are doing? How might you handle this situation?

Problem-solving

Organizer

Use the 7 steps to problem-solving to solve the problem in the scenario.

1. Problem	4. Evaluate the options <u>Pros</u> <u>Cons</u>
2. Other points of view	
3. Options	
	5. Solution
	6. Documentation and steps to implementation
7. Evaluation and monitoring	

Teamwork

Scenario

Scenario: You are working in a two-man welding stall. A new critical job comes in and is assigned to you and your coworker that will be built for the next six months. Every part must be signed off on by a Certified Welding Inspector. The parts have a fairly simple weld callout for ¼” fillet welds and a welding procedure specification for your machine settings. Both you and your coworker are qualified welders that meet all requirements. After struggling through the first part and having welds rejected, your coworker gets angry and decides that he will just weld them where he wants and just switch the machine back before the inspector comes around.

Points of view to consider:

You

Your coworker

The end user (customer)

The inspector

Answer the following key questions:

1. Should you offer to help your coworker? If you do and they refuse help, what would you do next?
2. If the inspector signs off and never catches the machine settings, then who does the liability fall back on?
3. How would you feel if after these parts ship, you found out that one failed and resulted in an injury or fatality?
4. As a team, how do you work to get the project done in the way it is supposed to when you have different opinions on how to do just that?

Teamwork

Characteristics of Effective Teams

Think about the characteristics that teams should have in order to be effective. In our scenario, all of the employees on the assignment are a team. Here are eight characteristics of effective teams to consider. For each of the eight, identify what the team members should do to demonstrate this characteristic.

1. The team must have a clear goal.
2. The team must have competent, knowledgeable team members.
3. The team must be collaborative, with all members being honest, open, and respectful of other members.
4. The team must have a unified focus and commitment.

Teamwork

Characteristics of Effective Teams

5. The team should have a results-driven structure.
6. The team must have high expectations that are understood by everyone.
7. The team should receive support and encouragement from external sources.
8. The team must have an effective leader who works for the good of the team.

Communication

Scenario

Scenario: Joey has come over to ask you if he can borrow a square to complete a project he is working on. Being a team player, you loan him the square, asking him to bring it back before he leaves for the day. Joey gladly obliges and thanks you when he returns the square at the end of the day. The next day, you spend the morning in required safety training and don't start welding until after lunch. When you get to your work area, you notice your toolbox has a drawer partially open and your square is missing. You ask Joey and he tells you that he loaned it to Fred, figuring it was no big issue because you didn't mind yesterday when he borrowed it. Fred brings it back and you notice it is covered in weld spatter, has been dropped and the spirit level is broken. Angry, you tell Joey to stay out of your toolbox and keep his hands off your stuff, and Fred to go buy his own tools. Fred tells you, "I don't understand the big deal, you still have your square, quit being a baby!"

Points of view to consider:

You

Joey

Fred

Answer the following key questions:

1. Whose responsibility do you think it is to replace your broken tool?
2. How could this situation have been handled in a more professional manner?
3. An obvious solution to this from many individuals is if you do not want your stuff messed with, then lock it up. How would better communication on the front-end have helped without needing to lock things up?
4. How might you approach mending broken relationships within the work environment to prevent issues with interpersonal interactions in case of necessary collaboration in the future?

Communication

Nonverbal Communication Activity

The scenario primarily focused on the impact of personality on communication in the workplace. Consider how you can use nonverbal communication with coworkers to convey how you are feeling. What messages could you be sending with your body language?

Write a brief statement of how each of the following could be used in this scenario to communicate with the coworker, including a supervisor. (Example: Clenched fists may show anger or minimal eye contact may signal lack of confidence)

Eye contact:

Facial expression:

Posture:

Handshake:

Personal space:

Vocal tone:



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