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Instructor Guide

Learning objectives
At the conclusion of this session, successful participants will be able to:

- Describe why problem solving is important to teams in the workplace.
- Explain the six step problem solving process we use in our teams.
- Discuss how brainstorming is used to identify the problem.
- State a problem, and a problem solving goal, in measurable terms.
- Recognize and interpret a block flowchart to understand a process at a high level.
- Recognize and interpret a symbol flowchart to understand a process at a detail level.
- Use a cause and effect diagram, and five why, to identify root cause.
- Brainstorm to generate possible solutions
- Use criteria based decision making to select an optimum solution
- Explain how to create an action plan to implement the solution
- Describe how to evaluate team problem solving results
- Identify tools and techniques used in each step of our problem solving process

Estimated Time:
4.0 hours - with two 10 min. breaks. Time can be controlled by limiting brainstorming and discussion.

Module outline:

Introduction
- Why is problem solving important to teams? 10
- How to brainstorm, what are the rules? 10
- Agenda 05

Our Problem Solving circle
- Circle + Block flowchart 15
- Block flowchart exercise 25

1. Identify the problem - what’s the gap? goal?
- Brainstorm, sort and group 15
- Prioritize based on business objectives - choose 10

Break 10
- Gap analysis, where we are - where we need to be, metrics 15
- Problem statement, goal statement, in measurable terms 15
- Symbol flowchart to understand a process - detail level 10

1. Analyze the problem 30 min
- Use cause & effect and five why to identify root causes 15
- Coffee problem, goal, cause & effect exercise 15

1. Generate possible solutions using brainstorming 30 min
- Focus on the goal, Keep, stop, start analysis 10
- Coffee exercise solution options 10

Break 10

1. Select and plan the optimum solution 20 min
- Decision matrix - use criteria to evaluate and decide 10
- Task Listing to develop a proposed plan 10
1. **Improve the solution**  
   - Create an action plan - what, who, when  
   - Execute the action plan - monitor progress

2. **Evaluate the results**
   - Did we achieve the goal, close the gap? - communicate results
   - Evaluate our problem solving teamwork - WWW, CBB
   - Share the learning

3. **Summary conclusion**
   - Review the six step problem solving process
   - Identify tools and techniques for each step
   - Course evaluation

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**Participant Materials:**

Copy of the flipchart plans and overhead summaries, with space for notes.

**Training Aids**

The course is supported by a PowerPoint file containing twenty three presentation slides, and nine flipchart plans. These are all included in the participant manual.

The presentation slides are intended for presentation and demonstration of the problem solving procedure. The presentation includes building of text information, animation builds of graphics objects, and some sound effects. The file is intended for delivery via computer using a good quality LCD projector. Overhead transparencies can be made from the Power Point file, but this would lose some of the value of the animated builds of graphics objects. The flip chart plans are “hidden” in the file and do not appear as part of the PowerPoint presentation.

The flipchart plans are for use in group exercises. Charts should be prepared before the session. Leave an extra page between each chart in order to allow lots of room for recording group responses. Have a team member post each flip chart as it is filled. Use different colors for each chart. Use a course title flipchart.


**Equipment and Supplies**

Flip chart: Prepare the flip chart exercises before the session. Use several colors.

LCD projector: Keep the room light on. Use the projector and the flip chart notes together during brainstorming and discussion as appropriate. In PowerPoint the period (.) blanks the screen.
Instructor Notes

The six step problem solving circle forms the basis of the design of this workshop. We use the initial presentation and discussion of problem solving to introduce brainstorming and flowcharting.

A single example exercise about “bad coffee” is used to practice problem analysis. Coffee was chosen in order to have a simple example most people can relate to, and which easily fits the cause and effect diagram tool. A different example can be used if desired.

Group brainstorming is the basic experiential technique for the course, and is used in full class and small group exercises. Participants should apply the rules of brainstorming throughout the exercises. We link back to the rules of brainstorming throughout the course, and reference the problem solving circle at each step of the process.

In full class brainstorming the instructor leads and controls the process, keeping the timeline in mind, limiting discussion, and providing input as necessary.

In small group exercises, each group controls its own process, and the instructor provides coaching to the group.

In order to experience and practice a “process” it is not necessary to brainstorm the “content” to completion. That is, it is not necessary to solve the coffee problem, rather to practice the process of solving the problem. For this reason it is OK to cut off an exercise and then discuss the process in order to keep to the session times. Careful attention to and management of exercise times is needed.

Remember when brainstorming:

- Pose a question for the team to answer as a group brainstorm.
- Encourage individual participation.
- Record responses to the questions on a flip chart using their own words as much as possible.
- Remember when brainstorming, there are no wrong answers, avoid judging responses.
- Contribute yourself as necessary to bring out key ideas.

The purpose is to set up a team situation which encourages the use of brainstorming and gives some practice in applying the basic tools of the problems solving circle. The team together finds the answers to the questions. Through the exercises participants have an opportunity to experience the synergy and commitment of teamwork.

This session is intended to build awareness and understanding of the specific six step problem solving process we use. At the conclusion of the session, participants should be well equipped to participate in a leader facilitated problem solving session using the six step process. They should also be able to recognize the basic tools and techniques used in each step.

Take every opportunity to link the course content to the specifics of the team’s work environment, experience, and vocabulary.
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**SEQUENCE OF INSTRUCTION**

**Introduction - Importance of Problem Solving**

Introduce yourself, give your credentials as necessary. State why you are happy to be here today...

Have participants introduce themselves as necessary. Ask: Why are you here today? What do you hope to get out of this course?

Comment on participants objectives, address any inappropriate objectives.

**Show P1 - FC - 1 Why do teams need a...process?**

Ask: What’s important about problem solving to teams? What happens if we don’t have a PS process?

Encourage team contributions to these. Record on flip chart.

Bring out the ideas: we often work in groups called teams. We believe teams are a better way of working. We know that teams are faced with problems on an ongoing basis. Team members need to know how to solve problems together - as a team. A clear organized, “rational” process helps keep the team on track and together. Promotes finding the best solution. Process helps reduce frustration. Contribute yourself as necessary. - Post the flipchart

Ask: What have we just been doing here? I posed a question, you tossed out ideas, I put them up on the flipchart... what is this technique called?

Right!...it’s called Brainstorming

**Show P2 - FC - 2 Brainstorming  What? How?**

Ask: What is brainstorming? Why do we do it? How is it done?

Encourage team contributions to these. Record on flip chart. Bring out: everyone participates, lots of ideas are generated, one at a time, don’t judge, build on ideas of others, record all ideas, acheive better group results. Contribute yourself as necessary. - Post the flipchart.
“Good! Brainstorming, It’s really the basic team problem solving technique.”

**Show P3 - OH - How to brainstorm...the process**

“Let’s review how to brainstorm....the process”
Comment on each point as it appears

“Remember the person with the pen should not filter or change the ideas, just get them onto the flip chart. It is OK however to ask for clarification of what exactly to write.”

**Show P4 - OH - How to brainstorm...the rules**

“Now let’s look at the rules..”
Comment on each point as it appears

**Show P5 - FC - 3 The rules of brainstorming**

“We will be using brainstorming throughout this course, so let’s keep the rules of brainstorming in mind.
Post the flipchart beside the problem solving circle

**Show P6 - OH - agenda**

“OK, we know that a clear problem solving process is important to teams. We have taken a look at brainstorming which is the basic technique of problem solving. What else will we be covering?”

Point to the posted Problem Solving Circle.

“This course is built around our six step problem solving circle... it’s how we solve problems...together”

Read each agenda point as it appears:
“We will be covering: How to...”

“By the end of this session you’ll have a clear understanding of this six step process, and some of the tools and techniques used in each step, and you’ll be well prepared to participate in problem solving with your team.”
Our Problem Solving Circle

Show P7 - OH - How we solve problems - circle

“Let’s take a closer look at how we solve problems.”

Point out and comment on each step of the process

Show P8 - OH - How we solve problems - block chart

“We can also view this process as a block flowchart in which each major step of the process is represented by a box with inputs and outputs. We know that inside each box, there are a series of steps that go on, but to understand the process at a high level we don’t need the details.”

Point out and comment on each step of the process noting inputs and outputs as the slide builds.

Show P9 - OH - Block flowchart... high level...

“Constructing a block flowchart is fairly simple, each major step is placed in a box and arrows are drawn to indicate the inputs and outputs. In our example the second step of the problem solving process is to analyze the problem. The input is a problem statement and goal statement. The output is the root cause or causes. This becomes the input to step 3.”

Continue comments as the slide builds

“Process input arrows are drawn in the right and top of each box and output arrows leave the right side and bottom.”

“The box previous is often referred to as the supplier, and the box following as the customer. This kind of analysis establishes internal customer-supplier relationships throughout a process. It is easy to see how the output of a supplier becomes the input of a customer.”

“Typically inputs and outputs fall into three categories, material or product, service, and information. All three are usually required for each part of the process to work properly.”

“An example of these inputs for manufacturing might be: Information contained in the BOM or an assembly drawing Material such component parts, or partially built product And Services, perhaps equipment maintenance. All of these are needed to get the job done.”
Show P10 - FC - 4  Block flowchart exercise

Divide the participants into two teams.

Give each team a set of flowchart “blocks”, and a roll of masking tape.

Instruct the teams to use the “blocks to:
- Construct a flowchart of our manufacturing process.
- Stick the “blocks” on a white board
- Connect them with arrows drawn on the board
- Label the arrows
- Remember to use the rules of brainstorming

Allow 15 min. for the exercise
  5 min. for presentation
  5 min. for debrief.

Monitor each team and coach as necessary
Have each team present to the other the process they constructed. There are two parts of the process.

Debrief the exercise.
Ask: How did you like the exercise?
  Did we get some teamwork going?
  Did you use some of the brainstorm rules, everyone contributes, one person at a time, listening, not interrupting or judging?
  What did you like about the exercise?
  Is there anything that could be better?
  As a team could you have done a better job?

“The important thing here is not to have drawn the perfect chart of our process, but rather to understand how a block flowchart is drawn and how to recognize and read one. So if we didn’t quite have enough time to complete the flowchart, that’s OK. We want to focus more on how the block flowcharting tool is used to understand a process.”

“This kind of flowchart is very useful in understanding a process, and in identifying problems. In some cases the output of an internal supplier does not match the needed input of their internal customer.”

“You can probably think of material or product, information, and services that you and your team produce for internal customers. The question is: Are they getting what they need form you? Do you know what they need?”
1. Identify the problem - what's the gap? goal?

Show P11 - OH - 1. Identify the problem...choose the...

Point to the posted PS circle.

“Let’s take a look at how to identify the problem. The key here is to focus in on **one** problem that offers us a good payback.”

Comment on each point as it appears on the slide.

- **First we need to make sure everyone understands the topic, or process, or part of a process, we want to work on.** We may be faced with very a very specific problem to solve. On the other hand there may be vague information, or a feeling that things are not going as they should. Or, we might feel the need to improve a process which seems to be working, but offers an opportunity for improvement. The team needs to identify a topic, and pose a question to brainstorm.”

“Some people call this ‘defining the problem space.’”

“An example of this might sound like:

The topic:

“There is a feeling that we are having some difficulty on line 6 in getting satisfactory product out.”

The question:

**Show P12 - FC - 5 The question to brainstorm:**

What are the problems, issues, or opportunities for improvement related to line 6 product?

By posing a very specific question we focus our problem solving effort. If we have the discipline to do the first step in our circle well, the rest of the steps will follow easily.”

- **We of course want full team involvement and to get as many ideas up and visible as we can.** This first brainstorming can produce quite a challenging list...its length can even be depressing!”

Put a series of 15 or 18 squiggle lines on the page in two columns to represent brainstorm ideas.
• (click to bring in point.)

“The next phase is to sort, group, and reduce our list.
Some of the ideas may be too ‘wild, wacky, or outrageous’.
These are good to stimulate creativity in the brainstorm, but
now we can agree to cross them off the list.
Some may be problems or issues outside of the scope of the
brainstorm question. These we can eliminate, but save for
future action.
Some may not be problems but solutions or actions we should
do. It’s positively irresistible to ‘jump to solutions’ when
brainstorming. These we should save on a separate page as
‘solution ideas’ we’ll use them later when we discuss solutions.
Some may be similar, or related, or symptoms of a problem.
These can be grouped together into themes or categories”

As you discuss this, mark each squiggle idea in a different
color.
Use X for items to be eliminated or saved. Code each:
WW - wild and wacky,
OS - outside scope,
SA - solution/action
Use green arrows, check marks, circles to create 3-4 themes or
categories.

“So we can boil our list down to just a couple of problem
themes”
• (click to bring in point.)
• (click to bring in point.)
“Now we ask, which of these is our priority?“
“Consider the business objectives, things like QCDC, which is
most important and which problem do we tackle first?”
• (click to bring in point.)
• (click to bring in point.)
“We can consider severity and frequency and then decide
which problem is our first priority.”
“When solved, which one would give us the biggest bang for
the buck?”

Post the flipchart.

“In cases where the team faces a very clear and specific
problem, this part of the process can be very short. But it’s
always good practice to make sure the problem the team is to
solve is a business priority.”
Show P13 - OH - 1. Identify the problem...what’s the gap?

“Having determined the priority problem, we need to take a closer look and to come up with a goal statement”

Comment on each point as it appears

- “First we do some brainstorming around where we are and where we need to be specifically related to the problem. This is often called ‘gap analysis’.”
- “We need also to consider how to measure success, what are the metrics, quality, delivery, cycle time, cost? What goal to set. And then a target date to accomplish it.”
- “Finally, check and make sure the team has the resources and understands the target. If the team does not have the right people and resources, we must bring them in before going any further.”

Show P14 - OH - Gap analysis...What’s the gap?

“Let’s take a closer look at gap analysis and metrics.”
- “We measure things that have customer impact.”
- “Quality - What are the measures of quality?”
  - Expect: defects, rework, test failures, customer returns
- “Cycle time - What do we measure?”
  - Expect: number of days to build a product, queue or waiting time, equipment set up times, equipment down time, inventory shortages.
  - “All these can affect cycle time.”
- “Delivery, we mean on time delivery, how can we measure it?”
  - Expect: Per cent of orders delivered on time as promised.
- “Cost - Measured in dollars and cents...Of course any time the cost of manufacturing goes up it can be a problem and any time we can reduce the cost it’s good news.”
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“When we state our problem in terms of a measurable gap between where we are and where we need to be the goal becomes clear and measurable, and so does success!”

Show P15 - FC - 6 Line 6 - The problem

Have this flip chart folded up and taped so that only the first two lines show: Line 6 - The problem
Defects have increased

Point out FC 5

“Going back to the Line 6 product brainstorm, we find that this is the priority problem to solve. There has been a decline in quality, defects have increased.”

Ask: What do we need to know if we want to state the problem in measurable terms, and identify a goal?

Bring out: What is the measure now?
What was it previously? When was that?
What do we need it to be?
When does it need to be fixed?

Unfold the flip chart and read.

Post the flipchart.

Show P16 - OH - 1. Identify the problem - flowchart

“Just to review the process of identifying the problem... Here is a flowchart. This is a symbol flowchart used to give a detailed view of a process. You often see a symbol flowchart used to describe what goes on inside one of the blocks on a block flowchart.”

Work through the flowchart commenting on the content in each step. “To identify the problem first we pose a question and brainstorm some ideas, then we eliminate the wild and wacky, sort and organize into themes, then we need to decide which is the priority problem, then we work on the gap, the metrics, where we are and where we need to be, finally we come up with problem and goal statements in measurable terms. Now we can move on to causes with a clear focus on the problem to solve, and the goal to achieve.”
“We have just taken a look at step 1, how to identify the problem using a tool called a symbol flowchart. A symbol flowchart is used to understand a process at a detailed level. To understand what goes on inside each block on a block flowchart.

Work through this chart indicating the meaning of each shape, then give an example:

“Perhaps this might be a receiving process in which raw material is received as the process input. The first action might be to check the weigh bill and verify the material matches, then place the material in a warehouse for storage until needed. Later the material is taken from the warehouse, counted and inspected, and if it’s OK transported to a work cell where it is needed. If inspection uncovers a problem with the material we need to make a decision as to what to do with it. One path might be to return it to the vendor, and that can be shown as a connector to the ‘return process’. Another path out of the decision diamond might be to scrap the material, so we have a connector to the ‘scrap process’.

“As we said earlier, this symbol flowchart is used to understand the process at a more detailed level.”
2. Analyze the problem

Show P18 - OH - 2. Analyze the problem...the process

Point to the posted PS circle.
“OK - on to the second step of our problem solving circle, Analyze the problem. The key here is to identify the real root cause or causes of the identified problem.”

Comment on each point as it appears

• “When we analyze the specific problem we need to make sure we have accurate data. If in our brainstorming of causes we are not sure of the facts, we need to check and verify in order to accurately analyze the problem”

• The basic tool is the cause and effect diagram, which is an organized brainstorm in which categories are selected to help guide and focus the process before the brainstorming begins

• “Within the framework of the cause and effect tool we use a technique called ‘five why’. For each identified cause idea in our brainstorm, we ask ‘why is this or what causes this’ in order to get at the underlying or ‘root cause’. In order to ‘drill down’ to the root cause we ask the question five times.

“We may not need to ask the why question five times for every cause idea, and in some cases five times may not be enough. I have even seen this technique called ‘seven why’. The point is, we need to explore each cause, to analyze and identify root causes we can act on to solve the problem.”

• “The five why technique helps to ensure we get to the bottom on the problem and fix it, not just apply a temporary bandaid.”
“Having identified root causes to work on we can decide on priorities based on the payback of fixing each root cause...”

• “Now we check to make sure we have accurate data, and the resources and people to do the job.”

Show P19 - OH - 2. Analyze the problem...cause...

Work through the process of drawing the C&E diagram. Note the four standard categories of causes, and indicate in some cases other categories may be used. Mention five why to get to root cause. Summarize using box in upper right.
Show P20 - OH - 2. Analyze the problem...root cause

Again work through the process, this time with an example.

“As an example lets take a look at just part of the diagram, the people and procedures cause categories.”

Point out FC6

“Remember the problem and goal statement for the line 6 problem...Defects had increased by 30% on line six product.”

• (click)

“Well when the team started working on a cause and effect diagram, in response to the first why we got ‘bad setups’ and ‘people don’t know how’.”

• (click)

“The team then focused in on the setup, to drill down to the root cause. Bad setup led to document out of date, which led to documents not being maintained, and finally the fact that Joe had transferred to R&D.”

• (click)

“Now the team took a look at the people don’t know issue, this led to poor documents which we already knew about, then to new hires, who were getting poor training, and finally to the fact that Joe used to do the training, and he had transferred to R&R”.

• (click)

“This looks like a root cause we can act on to solve the problem.”

Ask: What can be done about this root cause?

Can you think of some potential solutions?

Allow a little discussion...”Any wild and wacky ideas?”

Suggest... “How about we eliminate the need for setup, then we wouldn’t need documentation or training...or Joe!!!”

Summarize pointing to the flipcharts and OH:

“With the line 6 example we can see a clear and specific problem statement, a measurable goal, at least one root cause, and we can generate several solution options. We’ll leave this example now and move on to a different one.”

Show P21 - FC - 7 Bad coffee in the cafeteria...problem...

“Let’s try a simple example to practice ....we have been getting complaints about bad coffee in the cafeteria...That’s the priority problem we need to work on.”

Ask: What do we need to know if we want to state the problem in measurable terms, and identify a measurable goal?
Bring out: What is the measure now? - the metric?
What was it previously? When was that?
What do we need it to be?
When does it need to be fixed?

Note that this is a quality problem with customer impact, in fact the customers are complaining.

Ask: What measure can we use to describe the problem?

Bring out: Number of complaints per week, month, hour
Survey results 80% of customers say coffee scores below 5 on a scale of 1-10.

Note that it is possible to have a metric based on customer feedback on quality of a product or service. Note that Newbridge surveys its customers on a regular basis.

Propose a problem statement: -Write it on the flipchart
The average coffee score has declined from 7.3 to 3.2 over the past month. Note that this assumes there is a metric in place.

Propose a goal statement: Write it on the flipchart-
Improve the average coffee score to 7.5 or higher by the end of November.

Show P22 - FC - 8 Bad coffee in the cafeteria...root causes

Have each team go to a white board.
Instruct the teams to:
• Draw a cause and effect diagram to analyze the coffee problem
• Brainstorm and use five why to reach root causes.
• Circle the most important root causes identified.
• Remember to use the rules of brainstorming

Allow 10 minutes for the exercise.
Monitor each team and coach as necessary
Have each team present to the other their results.

Ask each team which root cause have they selected to work on a first priority.

Summarize by referring to the flip charts and noting that the teams have a problem stated in measurable terms, a clear measurable goal, and root causes to work on.
“We are well prepared to move on to considering possible solutions”
3. Generate possible solutions using brainstorming

Show P23 - OH - 3. Generate possible solutions...

Point to the posted PS circle.
“The next step on problem solving is to generate some possible solutions”

Read and comment on each point as it appears

•
•
•

“Remember to keep a focus on the goal to achieve...Keep your eyes on the prize...”
“Now is the time to consider the solution and action ideas we saved when we were brainstorming problems. Can we use any of these in our current brainstorm?

•
•

“One technique is the Keep, Stop, Start analysis. We question what about our process: is good and should be kept, what we must eliminate to solve the problem, and what actions we need to start doing to be successful.”

“When sorting and grouping solution ideas once again:
   Eliminate the wild and wacky
   Avoid going beyond the scope of the problem
   Group similar ideas into categories or themes.”

“The bottom line is too come up with some alternative solution options that we can evaluate.”

•

“Then check, ask: do we understand?, are there other options?, do we need additional input?”
“Looking at our coffee example we have some root causes to work on. Which root causes did we identify as the one we want to work on first?”

Allow a short discussion... and try to focus them on one or two root causes.

Invite the group to brainstorm some solution ideas that will eliminate or reduce the root causes, and achieve the goal.

Encourage participation, refer to the rules of brainstorming. Bring out options which are a bit creative or wacky like: stop serving coffee altogether and open a Starbuck franchise. When you have a dozen or so ideas move on to sorting and grouping.

“Here we can follow the same process of eliminating the wild and wacky, putting aside ideas that are outside the scope, and grouping similar ideas.”

Draw arrows and circles on the flipchart to link and group ideas

Discuss verbally the ideas and then propose:

Sorting the solution ideas into two or three solution themes. These could be:
- Change the supplier company
- Change the materials used coffee, filters, cups
- Change the people, or train them
- Change the equipment, repair, maintain

List the solutions on the flipchart.
Ask: Which solution do you favor? Which one do you like best.?

Ask several participants directly and then ask them why. Why is one solution better than another?

Bring out the ideas of: quality, delivery, cost, resources required.

“The question here is ..How do we select the right option.”
“We need to understand what factors are important to us, quality cost delivery, and so on in order to compare the options, and to select the right one.”
4. Select and plan the optimum solution

Show P25 - OH - 4. Select and plan...select

Point to the posted PS circle.

“Now we are ready to compare the options and decide which to go with. To select the optimum solution.”

Read and comment on each point as it appears

• “First, what are the criteria to use to compare and decide. You can use the statement ‘The solution should...’ to help here.
• “The solution should be...effective, and timely...From our goal statement we know what has to be done to be effective and when it needs to be done to be timely. The resources required, the risk, and the cost associated with each solution can be compared.”
• “The process is to score each option, compare them in a matrix, discuss the scores, and agree on the optimum solution.”
• “Consideration may be given as to which criterion is most important and which is least important.”

As a final step check to make sure the scores make sense, the decision feels right, no more information or discussion is needed. Consensus means that everyone on the team can agree to support the decision.

Show P26 - OH - Decision matrix...select the solution

“This is an example of the decision matrix tool, to give you an idea of how it can be used to stimulate comparative discussion of options, and help a team reach consensus.”

Work through the mechanics of the process with comments as each point on the slide appears.

Discuss the relevance of the scores, and the impact of the most important criterion:

“In this matrix we have scored each of four options 1-10 on 5 criteria. The tied scores at the bottom would indicate option 2 or 3 is the best. But is it really?”
When we consider which criterion is most important, if it’s cost there is not much to choose, effectiveness well option 3 wins, but is it is risk, or the resources needed then we would choose option 2. In fact if risk and resources are most important we might consider option 1 despite it’s low score on effectiveness.”

“The bottom line here is to use the tool to compare discuss and understand the options, and to make a decision based on the most important criteria. That way the team can reach consensus and select the optimum solution.”

**Show P27 - OH - 4. Select and plan..**

Point to the posted PS circle.
“Step 4 also includes planning of the solution”

Read and comment on each point as it appears

- “Reviewing the problem, goal, and solution helps to keep us focused - ‘to keep our eyes on the prize.’. In constructing a plan, we need to identify what needs to be done, the tasks: who is responsible for each task; and when each needs to be completed in order to reach the goal.”
- “Task statements use action verbs, they let you know what needs to be done.”
- “The tasks are listed in sequential order, here a flowchart can be very helpful in organizing the tasks to accomplish the goal.”
- “The final output is a proposed plan with responsibilities and target dates for each task.”
- “Then check that the team is clear on the plan and agrees it will deliver the goal. It’s important now to consider if you have all the resources and people to make it work. If not, it’s time to bring them in.”
5. Implement the solution

Show P28 - OH - 5. Implement the solution...the process

Point to the posted PS circle. “Step 5 on the problem solving wheel is implementing, making the plan happen.

Read and comment on each point as it appears

•

“To make it happen, we may form an essentially new team, the implementation team. The implementation team focuses on executing the plan and delivering the goal without other distractions. This group is empowered to “make it happen”. We need all those who have responsibility for tasks on the team. If other teams or groups are involved they need to be represented. Remember, participation brings commitment to plans and goals. This means that in some cases the work team that initiated the problems solving process may not be exactly the same as the implementation team. Very often the implementation team is a smaller group which meets separately, and reports back on progress to the work team.”

•

•

•

“The review phase is used to give everyone an opportunity to discuss, input and commit or re-commit to the solution. This is very important for those who are new to the team. They may need to be sold, or convinced of the benefits. They need to make the solution plan their own.”

•

•

•

•

“Together the implementation team constructs the action ‘plan of record’, meets to monitor progress, and keeps the plan on track to deliver the goal.”

Show P29 - OH - Action plan

“An action plan sheet is a tool used to identify the plan tasks, responsibilities, and target dates. It often includes an area to show task status, and is used by teams to monitor progress. An action plan may take one of a number of formats, this is just one example.”

“In the case where the implementation team is exactly the same as the team that proposed the solution, the development of the action plan of record can go quite quickly.”
6. Evaluate the results

Show P30 - OH - 6. Evaluate the results

Point to the posted PS circle.
“The final step of the problem solving circle is to evaluate.”

Read and comment on each point as it appears

- “First, the results, how did we do? did we achieve the goal how close did we come? Who needs to know about this, how do we communicate the results? Don’t be afraid to ‘blow your own horn’”.

- “Second, the teamwork, how did we do? WWW, CBB, What did we learn, how can we share our learning?”
  “High performance teams pay attention to their processes in order to improve.”

- “Celebrate... celebrate success, learning, accomplishment.”
Summary conclusion

Show P31 - OH - How we solve problems...with teamwork

“Let’s review our problem solving process, and identify the tools and techniques used at each step.”

- Read the steps, ask for the tools and techniques used in each
- Read to confirm
- Read the steps, ask for the tools and techniques used in each.
- Read to confirm

“Well that’s the course summarized on one slide. Our six step problem solving process, and the basic tools and techniques used in each step.”

“As we said at the beginning, if you have a clear understanding of this six step process, and recognize the tools and techniques used in each step, you’ll be well prepared to participate in problem solving with your team.”

“So what do you think, how did we do on the course? Did you achieve the goals you had for this course?

Do a WWW CBB t chart to illustrate the tool.

Ask: What was the best, most valuable, or most important, topic on the course?
What could we do to make this course be better?

Mention that teams often use this type of tool to evaluate their processes.

Thank the participants: “You know, it is often the participants that make the training course or session. Thanks you very much for your participation, your enthusiastic contributions, and your ideas. You did a great job!”

Have participants complete a course evaluation.
Check that a course attendance sheet has been completed.