

Step 5: Taking Action

"Never mistake motion for action."
Ernest Hemingway

You are more than halfway through your problem-solving journey and in many respects you have completed the most difficult part of the task, which is making up your mind. Some people will get a false sense of security at this stage of the problem-solving process because they feel that since the thinking is finished, then the problem is solved. How about you? Are you ready to take the special care needed to implement your carefully-designed plan? In many respects, the "take action" step of the method is most important because it puts into play the great solutions you have struggled to generate.

Getting Started

Begin your action plan by **revisiting the original problem**. Refresh your memory as to the complexities of the problem and recall the ineffective plans you considered implementing in the past. This will renew your confidence in the action plan you have chosen and will remind you of your original goal . . . to blow that pesky problem right out of the water!

Next, you must **develop a schedule** you will follow while implementing your plan. It is important to set some deadlines on paper to help keep you organized and focussed. Within the framework of your schedule, build in some short-term goals and rewards in order to keep yourself motivated to continue the action. (Chocolate is always a good reward, but something low fat and less addictive might be better for your health--especially if your action plan revolves around improving your nutritional intake.)

Keeping Good Records

Because you have elected to apply the problem-solving method to a complex problem, the solution itself will likely play out in a complicated way. It is for this reason that you will be better equipped to examine your results if you keep timely, detailed records. You may wish to do this in a statistical manner, or you may choose to keep more anecdotal (storylike) records in the form of a journal on your

computer. If necessary, use e-mail to update others on changes and other important information. Either way, it is very important to keep track of your progress by labelling and dating each recorded entry.

Frustrated? Stick With It!

After spending a significant amount of time thinking through the best solution to a problem, you might feel you have no energy to actually get the plan off the ground. Don't despair! You must think carefully about the benefits of arriving at a reasonable answer to a daunting question. Perhaps you have been plagued by the problem for years. By finally putting a plan into action you could make a significant change in your life that makes everyday living from then on an absolute breeze! Maybe by putting your solution into action you will be able to overcome a conflict with one of your teachers or peers. This will relieve the anxiety you've been feeling in the presence of that person and thus make your days at school more relaxing and even enjoyable. By constantly reminding yourself of the long-term benefits of putting the plan into action, you will help motivate yourself to follow through these last steps to the end.

Developing proficiency in problem solving will assist you in many aspects of your life. The problem-solving method has been the subject of many popular films in exciting and humorous ways. Watch the movie *Apollo 13* to see the method in action. How can a person build a thermonuclear device with a piece of wire, a ballpoint pen, and a safety razor?

Let's Look at "Action" in Action

The best way to watch how an action plan works is to observe it in . . . you guessed it--action. Three problem scenarios are given below along with the proposed solution for each, and the different kinds of action plans needed to fit the different kinds of problems.

***Problem Scenario 1:
I'm unfit and overweight . . . what should I do?***

Unfortunately, this is a substantial problem facing many people today. There are a number of possible solutions that you might brainstorm to solve this dilemma:

- a. Diet like crazy . . . in fact, stop eating.
- b. Exercise like crazy . . . three or four hours a day.
- c. Find a quick fix, like diet milkshakes.
- d. Diet and exercise.
- e. Do nothing.

Once your list is filled with many possible solutions, the method states that you must examine the pros and cons of each.

a. Diet like crazy . . . stop eating altogether.

Although this kind of "inaction plan" might produce some minor, immediate results, it is simply foolish and unhealthy. You will not be able to maintain such a lifestyle--thus you'll end up right back where you started. In fact, experts state that taking a starvation approach to dieting will send a signal to your body to conserve all possible resources . . . fat in particular. You will actually maintain your current level of body fat. Your health will be diminished. This, indeed, is not a very effective solution.

b. Exercise like crazy . . . up to four hours per day.

Increased physical activity is a good thing for everyone. But attempting to implement an "over-action" plan can be almost as harmful as taking no action at all. Your body will not be equipped to handle such a shock and will fatigue very quickly. You will feel terrible all over for several days. Pain is not a very good motivator, by the way, and you will be all the more likely to give up on the new regime. Furthermore, you probably do not have four spare hours in your daily schedule at present. If you attempt to stick to such a rigorous schedule, you will have to give up something else. If you give up a leisure-time activity you currently really enjoy, you will quickly become resentful of the exercise plan. If you give up your homework time, you will be creating a whole new set of problems to solve. This looks like another lose-lose situation.

c. Diet milkshakes.

Gross, unhealthy, unsatisfying, ineffective, and expensive. Next solution?

d. Diet and exercise.

The popular choice for improved health and weight loss. Many experts endorse this approach and your doctor very likely will too. The results come slowly, though, and you want to look and feel better now.

e. Do nothing.

This is easy to do. This means you will not have to make any changes at all to your lifestyle. But you've tried this already, and it is what got you into your current predicament in the first place. The anxiety and depression you are feeling stemmed from this behavior. This is obviously *not* a great solution to your problem.

After weighing the pros and cons of each solution (like the health risks and unmanageable time constraints), you elect to implement the diet and exercise plan. Making the decision to change your lifestyle completes a good portion of the problem-solving method, but getting the results will only come by actually doing it. As the people at Nike say: ***Just do it!***

In order to take action with a plan of this nature, you must set a reasonable and maintainable workout schedule. Write it down in your agenda book and REALLLLLLLY commit yourself to it. (Remember the case of bacon and eggs: the chicken is involved, the pig is committed.) Do not attempt to solve your problem by setting a schedule that will alter your current lifestyle so significantly and painfully that you will find it impossible to stick to the new regime.

Next, you must find a way to measure your short-term successes. This must go beyond merely comparing your physical appearance with that of an already very fit acquaintance. Monitor your food intake. Take detailed measurements of your body and record your weight. (Careful with this one, though, . . . muscle does indeed weigh more than fat so with exercise and weight training, you could be gaining lean muscle mass, but not losing any pounds on the scale.) Time your endurance levels. As you become more fit, your measurements will go down and your endurance levels will go up. When you start seeing this short-term success, you will be motivated to continue your plan. Record your data on a chart like the one that follows.

HEALTH AND FITNESS: BEFORE AND AFTER

My diet and fitness program began on: _____

Before the program, I weighed _____

My body measurements were:

Chest: _____ Waist: _____ Hips: _____

Upper arm: _____ Thigh: _____

Calf: _____ Other: _____

Cardiovascular endurance: _____

At the three-month mark, I weigh _____

My body measurements are:

Chest: _____ Waist: _____ Hips: _____

Upper arm: _____ Thigh: _____

Calf: _____ Other: _____

Cardiovascular endurance: _____

At the six month mark, I weigh _____

My body measurements are:

Chest: _____ Waist: _____ Hips: _____

Upper arm: _____ Thigh: _____

Calf: _____ Other: _____

Cardiovascular endurance: _____

Set long-range goals for yourself that are realistic and healthy. This might come in the form of an ideal weight, a specific level of cardiovascular endurance, or even just being able to fit into a formerly beloved pair of jeans. Celebrate your short-term success, but keep striving for the big prize!

This kind of substantial problem is one that calls for an action plan that places the onus on the individual. You will rarely be able to rely on a peer or a teacher to keep you focussed on your goals, although finding a committed friend to exercise with makes the process a lot more fun. An individualized action plan may therefore be one of the toughest to execute. Take special care to use the motivational tactics outlined in the plan to assist you in **sticking to it!**

***Problem Scenario 2:
How will I ever finish this research paper?***

Many high-school courses require a major research paper. This can be a daunting task for students who do not like to write, who are reticent to do research, or who have an intense fear of the computer. By developing a strong action plan that is manageable and utilizes the many technical and human resources you have, you will be able to complete the task efficiently and completely.

To begin, **make a list of all the required elements** of the assignment. Perhaps you are required to submit an outline, an edited rough copy, a comprehensive bibliography, and a list of interview questions. Take special note of any advance due dates. Then create a manageable schedule that will allow you to complete the task three days before the actual deadline. This schedule will not only assist you in keeping up with the workload, but it will ensure that you have not forgotten any of the compulsory aspects of the assignment. Your schedule might look something like the sample that follows.

ACTION PLAN SCHEDULE
(Working from end to start)

PROBLEM: _____

My project must be completed by: _____

The final draft will be complete on: _____
(three days before the due date)

The rough draft will be complete on: _____

The writing period will take place from _____ to _____

I will complete my research by _____

I will dedicate the following spares to research:

I will use the Internet and community library resources on these days:

My directive inquiry question will be set by: _____

My general inquiry on a selected topic will occur on _____

Once you think you have a research topic and you have done some preliminary research, **make an appointment with your teacher**. He will be pleased with your initiative, but more importantly, he will offer his expertise in areas of research and writing. Exploit his inevitable desire to prattle on about your topic, thus giving you some very helpful shortcuts!

Be sure to build plenty of time into your schedule to actually read the research materials you have gathered.

Conduct any required interviews after you have done some reading so that you can ask some intelligent questions to the expert. Try to get the interview done as early as possible.

If you think you have exhausted your research capabilities, ask the librarian for assistance. Remember, it is his job to dig around for obscure resources, so the more polite and enthusiastic you are, the more helpful he will be.

Begin writing the paper. Do not attempt to finish this step in one or two sittings. In fact, making a mini writing schedule will help you set and achieve short-term goals. Once you have completed a rough draft and done one thorough self-edit, **ask someone you trust to read your paper** and give you an unbiased round of editing. You must not be hurt or insulted by your editor's suggestions . . . you have asked for them! Make the appropriate changes.

You **must begin formulating the final draft well in advance of the due date**. Murphy's Law will always come into play here: If something can go wrong, it will. Do not put yourself in the position where you have to beg for an extension from your teacher because of computer glitches. Teachers will occasionally offer bonus marks to students who are able to hand their papers in early, as they really like to get a jump on their marking. Take advantage of these "free marks."

After completing a careful final edit of the paper, be sure to gather up all of the required elements, which might include an outline and the rough draft, before turning in the assignment. Look at the original assignment to make doubly sure that you have completed all parts of the task.

Implementing an action plan of this nature, that is, an academic one, need not be an entirely independent affair. It is not considered cheating if you wisely use the expertise of those around you who are not only able but willing to help you get the job done. Taking action sometimes means knowing how to get others active.

Problem Scenario 3: How will we ever win Spirit Week?

This third problem scenario deals with a more personal or people-centred problem. A perfect place to find such a conflict is in fun, yet competitive events like high-school pep weeks. When large groups of students get together to achieve a common goal, enthusiasm can quickly turn into chaos if a good leader and problem solver is not on hand.

Perhaps you find yourself at the centre of a controversy surrounding choosing competitors for a talent event. You are only allowed two

entries, yet four groups or individuals want to participate. After brainstorming for possible solutions, you realize that although there are some quick fixes that might do just fine, you want to maintain the integrity of the reason for spirit week . . . fun, mass participation and fair play for all.

First, you must **organize a fair process** by which auditions shall be carried out. All interested parties must be informed of the time and place and must be available during that time.

Next, **ensure that all parties know the criteria by which they shall be evaluated.** This will help avoid any discrepancy after the decision has been made. Review the criteria before and after the audition.

Select a panel of judges that is representative of the group for whom the acts shall be performed . . . that is, male, female, staff, students, young, old, jock, artist . . . and so on. Do not allow there to be any perception of favoritism.

Give each entrant the same opportunity to perform or explain their act. Ask each group a few pointed questions. **Spend an equal amount of time observing each act** in order to minimize the variables for decision-making time.

Discuss your decision as a panel. Try to come to a unanimous decision. (Vote by secret ballot if absolutely necessary.) Be careful to look at the "big picture." Have you attempted to include as many new faces as possible? Will the entire grade be happy with the choice? Have you done your best to avoid hurt feelings and maintain the spirit part of the event?

Be respectful of the groups you have not chosen when announcing the winners. Perhaps you could think of an alternative event or situation when they can participate. Try to leave everyone feeling good about the effort they have put forth.

Remember, the easiest and seemingly most efficient route to making a decision is not always the best way to solve a problem that involves strong personalities and feelings. By taking the more difficult path, you can often find smooth solutions to complex human problems. And that is the road to scoring "Excellent" on the action plan part of the problem-solving rubric.

*"What you can't get out of,
get into wholeheartedly."
Mignon McLaughlin*

How Do I Know if My Action Plan Is "Excellent"?

In order to achieve an assessment of "Excellent," your action plan must consist of complex, multiple steps. The various levels of organization and planning involved in the last problem-solving scenario is a good example of this. By choosing a slower, more methodical plan of action to achieve just the right results, you can be assured your evaluator will see the high-level thinking and action that have gone into the execution of your plan. When your plan is truly complex, keeping detailed records of your progress will help your evaluator see the time and effort you have invested and will ensure you a fair and positive assessment.

What Makes My Action Plan "Very Good"?

If your action plan follows the prescription stated in the chosen solution and you execute it directly, you will likely receive an assessment of "Very Good." Some problems will call for a direct, one-step action plan that can be carried through with very little outside interference and in a limited amount of time. It is not until the action becomes multilayered and perhaps (although not always) time consuming that the plan will receive an "Excellent" on the evaluation rubric.

How Come I Got a "Not Yet" on the Action Plan?

Chances are your difficulty began in the selection of the problem. If the conflict is not substantial enough, your action plan will be an oversimplified "no brainer" and there will be little or nothing for your evaluator to assess.

Another difficulty you might encounter is that you simply didn't take action. Some students might feel that once they have identified a solution, they don't really need to carry out the plan. Not true! Action is **doing**. You cannot test the result of your hypothesis if you don't actually do the experiment. Further, if you do not document any of the

steps taken in your action plan, it is difficult for your evaluator to measure your time and effort.

Finally, you might have achieved a "not yet" because you did not bother to listen to your own advice. If you are trying to solve a personal conflict and you decide that a calm, adult conversation with someone is the best way to work out your differences, then that is what you must do. If your action plan ends with somebody's nose bleeding profusely . . . guess what? Back to the drawing board.

The most important things to remember to implement a good plan of action are: scheduling, documenting, and self-assessing throughout the process. Your final evaluation should not come as a surprise. If you have taken the time to do excellent work, then that is what your final evaluation shall be!

Step 6: Evaluating the Results of the Solution Chosen

If you received a "Not Yet" in this category on the evaluation rubric, it probably means one of two things: you did not evaluate your results at all or you evaluated them too sketchily.

What Am I Supposed to Say?

As the rubric states, you are to tell whether or not your chosen solution or decision worked. If you do not know where to begin in evaluating your results, use the following form to help you get focussed.

How Good Was My Solution/Decision?

My original problem was _____

The solution I reached was to _____

The action I took was to _____

And the \$64,000.00 question . . .

Did my solution fully solve the problem? Check one:

- YES, completely.
- Partially yes, partially no.
- NO, it doesn't work.

Should my solution be amended/improved? Check one:

- Yes, a few alterations are in order.
- No, I should try a completely different alternative.
- No, it's fine as is.

What Next?

You should now have arrived at the bare bones evaluation of your solution. But merely saying, "My solution worked" or "My decision was a poor one" is insufficient. The evaluator wants a more detailed analysis, so you must take your thoughts further than the simple yes/no answer. In order to get a "Very Good" or "Excellent," consider the whys and hows, and gather specific evidence too.

What Is Meant By "Evidence"?

There are two types of evidence you can collect to back up your problem-solving documentation.

1. Material evidence.
These are real things that prove your success. (For example, a fitness certificate to prove your success in solving a self-improvement problem.)
2. Written or verbal evidence.
This is testimony in support of your claim of success. (It could be, for example, a letter from your supervisor at work explaining how you solved an inventory tracking problem or statistics that illustrate the success of your peer-led Stop-Smoking Program.)

Note: These items can also be used to show partial success or even failure. (For example, if your problem was how to improve your Biology mark by 20% and your next report shows a rise of only 10%, it is still a worthwhile piece of evidence to show partial success.)

What If My Results Were Great? What More Can I Say?

To get a "Very Good" or "Excellent" evaluation in Step 6 of problem solving, it is not enough to say "my solution worked perfectly." Go ahead and brag. Tell the evaluator in detail how and why your solution was so wonderful. Use the form below entitled "If I Have a Great Solution . . . ?" to help you to generate the materials you need to include.



If I Have a Great Solution . . . ?

Fill in Section A to prepare what you'll need for a "Very Good" evaluation on Step 6 of problem solving. If you aspire to an "Excellent" rating, fill in Section B as well.

Section A

This solution worked beautifully. What I wanted was:

and what I got was:

Here is the bragging. The **evidence** that told me it worked was:

- a) _____
- b) _____
- c) _____
- d) _____

Section B

Upon reflection, I realize my chosen solution worked for the following reason(s):

(Check and explain one or more reasons.)

___ It was workable because

___ It was practical because

___ It was realistic because

___ The environment was right in that

___ My timing was right in that

___ It was _____ (other) because

Here's why my choice was better than the other alternatives:

Alternative B was less desirable than my choice because

Alternative C was less desirable than my choice because

Alternative D was less desirable because than my choice because

Here's what I did particularly well that I'd like to remember for the next time I do problem solving:

Here's what I've learned about the problem-solving process:
(Complete as many statements as possible. This will give you the material you need for "evaluating the process.")

Problem solving is tough because . . .

It works best if you . . .

It can be easy when . . .

I problem solve effectively when . . .

Anyone who wants to problem solve well should remember to . . .

The most important step of the six-step process is Step __ because . . .

Don't rush through Step __ because . . .

Be sure to ask for help with . . .

Choose a problem that . . .

Other comments/advice:

OPTIONAL, but highly recommended:

Here's what I now plan to do:
(Check only if applicable.)

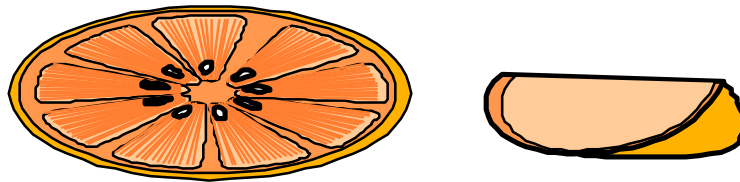
___ Redefine the problem or explore another related aspect and begin the process again. I feel I can go further.

My new problem is:

Congratulations! What you have just done is the rough work for documenting Step 6 of the problem-solving process. Polish it up a bit, then transfer this rough work to the form on page 11 of this learner guide.

What If My Results Were Mixed? What Do I Say?

Again, saying something like, "Part of my solution worked and part of it didn't work" will not get you beyond the dreaded "Not Yet." Details are required. Use the form below entitled "If I Have a Partial/Limited Solution . . . ?" to help you generate the necessary information.



If I Have a Partial/Limited Solution . . . ?

Fill in Section A to prepare what you'll need for a "Very Good" evaluation on Step 6 of problem solving. If you aspire to an "Excellent" rating, fill in Section B as well.

Section A

This solution was only a partial success. What I wanted was

What worked, that is, the strengths of my solution were:

However, what did **not** work, that is, the weaknesses of my solution were:

Here is the "good, the bad, and the ugly":

The **evidence** of success:

- a) _____
- b) _____
- c) _____

The **evidence** of failure:

- a) _____
- b) _____
- c) _____

Section B

Here's what I could do to improve the solution/decision:
(Check one or more.)

- In Step 1, choose a more suitable problem.
- In Step 2, generate more alternatives.
- In Step 3, use more information sources.
- In Step 3, use a better variety of information sources.
- In Step 3, seek the help of _____
- Spend more time on Steps 2 and 3 of the process.
- In Step 4, choose a different alternative from the list I generated in Step 2.
- Stick with my solution, but have a better action plan for Step 5.
- Use my time more wisely.
- Other (please specify): _____

Here's what I've learned about the entire problem-solving process:
(Finish as many statements as possible. This will give you the material you need for "evaluating the process.")

It's tough because . . .

It works best if you . . .

It can be easy when . . .

I problem solve effectively when . . .

Anyone who wants to problem solve well should remember to . . .

The most important step of the six-step process is Step __ because . . .

Don't rush through Step__ because . . .

Be sure to ask for help with . . .

Choose a problem that . . .

Other comments/advice:

OPTIONAL, but highly recommended:

Here's what I now plan to do:

(Check and explain one.)

Redefine the problem and begin the process again.

My new problem is:

Select a different alternative and try again from there.

The second alternative I'll follow through on is:

Congratulations! What you have just done is the rough work for documenting Step 6 of the problem-solving process. Polish it up a bit: then transfer this rough work to the form on page 11 of this learner guide.

What If My Results Were Not Great? How Can I Evaluate Them? Should I Even Bother?

One reason you may not have ventured into Step 6 is because your results were not perfect. You may think that there is no point in reporting "failures." This is **WRONG**. Being honest about less-than-perfect results is, in fact, commendable. If your results were not great and you say so, you can still earn a "Very Good" or "Excellent." Admitting errors and analyzing the causes is a valuable part of the process. Use the form entitled "If I Have a Poor Solution . . . ?" given below to help you do just that.



If I Have a Poor Solution . . . ?

Fill in Section A to prepare what you'll need for a "Very Good" evaluation on Step 6 of problem solving. If you aspire to an "Excellent" rating, fill in Section B as well.

Section A

This solution did **not** work. What I wanted was:

but instead, I got:

Here are the "gory details." The **evidence** that told me it didn't work was:

- a) _____
- b) _____
- c) _____
- d) _____

Section B

Upon reflection, I realize my chosen solution did not work for the following reason(s).

(Check and explain one or more reasons.)

It was unworkable because

It was impractical because

It was unrealistic because

It was too costly because

The environment was wrong in that

My timing was wrong in that

It was _____(other) because

Here's what I could do to improve the solution/decision:
(Check one or more.)

- In Step 1, choose a more suitable problem.
- In Step 2, generate more alternatives.
- In Step 3, use more information sources.
- In Step 3, use a better variety of information sources.
- In Step 3, seek the help of _____
- Spend more time on Steps 2 and 3 of the process.
- In Step 4, choose a different alternative from the list I generated in Step 2.
- Have a better action plan for Step 5.
- Use my time more wisely.
- Other (please specify): _____

Here's what I've learned about the entire problem-solving process:
(Finish as many statements as possible. This will give you the material you need for "evaluating the process.")

It's tough because . . .

It works best if you . . .

It can be easy when . . .

I problem solve effectively when . . .

Anyone who wants to problem solve well should remember to . . .

The most important step of the six-step process is Step ___ because . . .

Don't rush through Step ___ because . . .

Be sure to ask for help with . . .

Choose a problem that . . .

Other comments/advice:

OPTIONAL, but highly recommended:

Here's what I now plan to do:

(Check and explain one.)

___ Redefine the problem and begin the process again.

My new problem is:

___ Select a different alternative and try again from there.

The second alternative I'll follow through on is:

Congratulations! What you have just done is the rough work for documenting Step 6 of the problem-solving process. Polish it up a bit, then transfer this rough work to the form on page 11 of this learner guide.

I've Filled in the Appropriate Form. Now What?

Look at the information you have generated on your form. Write it up in an organized fashion on the last page of your Problem-Solving Documentation Form, which is found on page 11 of this guide. If you have covered everything on the form thoroughly and honestly, a "Very Good" or "Excellent" should be within your grasp. Hand everything in to your chosen evaluator, and GOOD LUCK.

*"Don't be afraid to give up the good
to go for the great."
(Kenny Rogers)*

Where do I go from here?

Get ready to solve more problems! The skills you have learned by doing this learner guide will help you whenever you find yourself having to deal with a problem. When you go through the problem-solving process, remember to think creatively—and keep all your options open!