

COMMON TRAINING

PROFICIENCY LEVEL THREE

INSTRUCTIONAL GUIDE

SECTION 6

EO M303.06 – SOLVE PROBLEMS

Total Time: 60 min

PREPARATION

PRE-LESSON INSTRUCTIONS

Resources needed for the delivery of this lesson are listed in the lesson specification located in A-CR-CCP-803/PG-001, Chapter 4. Specific uses for said resources are identified throughout the instructional guide within the TP for which they are required.

Review the lesson content and become familiar with the material prior to delivering the lesson.

Photocopy the problem-solving scenarios located at Annex E.

PRE-LESSON ASSIGNMENT

N/A.

APPROACH

An interactive lecture was chosen for TPs 1, 2 and 3 to review logical analysis and orient the cadets to additional problem-solving methods.

An in-class activity was chosen for TP 4 as an interactive way to provoke thought and stimulate interest among cadets about problem solving.

INTRODUCTION

REVIEW

N/A.

OBJECTIVES

By the end of this lesson the cadet shall have solved problems.

IMPORTANCE

One important skill that a team leader must have is the ability to solve problems. As cadets become team leaders, they will use this skill more often. Cadets have a greater chance of success in solving problems if they have a variety of problem-solving methods from which to choose.

Unofficial convenience copy of A-CR-CCP-803/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-803-PF-001/A-CR-CCP-803-PF-001.pdf.
Verify against the official publication.

Teaching point 1 **Review the Steps for Logical Analysis**

Time: 5 min Method: Interactive Lecture

LOGICAL ANALYSIS

The eight steps in logical analysis were taught in the previous year (M203.06 Employ Problem Solving, A-CR-CCP-802/PF-001, *Royal Canadian Air Cadets, Level Two Instructional Guides*, Chapter 3, Section 6). They are:

1. confirming the task;
2. identifying the problem;
3. determining the critical factor;
4. developing alternative solutions;
5. comparing alternative solutions;
6. determining the best solution;
7. implementing the solution; and
8. evaluating the plan and the implementation.

CONFIRMATION OF TEACHING POINT 1

QUESTIONS

Q1. What is the first step in logical analysis?

Q2. What is the third step in logical analysis?

Q3. What is the last step in logical analysis?

ANTICIPATED ANSWERS

A1. Confirming the task.

A2. Determining the critical factor.

A3. Evaluating the plan and the implementation.

Teaching point 2 **Explain the Steps in the IRISE Method of Problem Solving**

Time: 10 min Method: Interactive Lecture



The IRISE method of problem solving is much like logical analysis but has fewer steps to remember.

The IRISE method of problem solving was developed for adolescents.

IRISE is an acronym. The IRISE method of problem solving has five steps. They are:

Unofficial convenience copy of A-CR-CCP-803/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-803-PF-001/A-CR-CCP-803-PF-001.pdf.
Verify against the official publication.

1. **Identifying the Problem.** To be able to solve a problem, cadets must understand what the problem really is. If the problem is not clearly identified, a problem may be solved but it may not be the "real" problem. Questions that should be asked in step one include:

- What do we wish to accomplish?
- How much time will we need?
- What resources do we have?
- What resources do we need?

2. **Researching All of the Options.** This step involves "brainstorming" options to solve the problem. Cadets will have to research each option. Some options will need to be discussed outside the team and some options will need to be critically and methodically investigated. There will be some options which will solve the problem easily and some options will be more difficult. Some questions may need to be asked, such as:

- Which option is the simplest?
- Which option is the safest?
- What is the worst possible outcome?
- Which option is the most flexible?
- Which option uses available resources in the most economical manner?

3. **Identifying the Consequences of the Options.** Each option will have consequences. Ensuring the cadets know what the consequences may be before putting a decision into action, may help to eliminate options with undesirable consequences. There may be consequences to options that will not be known, but these should be very limited.

4. **Selecting the Most Appropriate Option.** This is the step where the option is selected and implemented. Once an option is selected, a plan for implementation should be created. It is now time to put the plan into action.

5. **Evaluating the Decision.** Once the plan is implemented, evaluate the decision. Examine the implementation of the option and the needs that may not have been anticipated. Questions may include:

- Was the option a good one?
- Was the plan to implement the option a success?
- What can we do to improve the plan or the implementation for the next time?
- What lessons were learned?

CONFIRMATION OF TEACHING POINT 2

QUESTIONS

Q1. For whom was the IRISE method of problem solving developed?

Q2. The IRISE method of problem solving is similar to what other method of problem solving?

Q3. What are the steps in the IRISE method of problem solving?

ANTICIPATED ANSWERS

A1. For adolescents.

A2. Logical analysis.

Unofficial convenience copy of A-CR-CCP-803/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-803-PF-001/A-CR-CCP-803-PF-001.pdf.
Verify against the official publication.

A3. The steps in the IRISE method of problem solving are:

(1) identifying the problem;

(2) researching all of the options;

(3) identifying the consequences of the options;

(4) selecting the most appropriate option; and

(5) evaluating the decision.

Teaching point 3 **Explain the Steps in the TEACH Method of Problem Solving**

Time: 10 min Method: Interactive Lecture



The TEACH method of problem solving is much like the IRISE method, which is like logical analysis.

The TEACH method of problem solving was developed for a team approach. The TEACH method of problem solving is another situation where positive team dynamics should be displayed.

TEACH is an acronym. The TEACH method of problem solving has five steps. They are:

1. **Time.** This first step involves spending time to discover the real issue or problem. With the assistance of the team the “real” problem must be identified. Questions that should be asked in the “time” step should be the same as the identifying the problem questions for the IRISE method.

2. **Exposure.** This second step involves uncovering what others have done in a similar situation. By using information gathered from others, the number of options that may be created to solve the problem should increase.

3. **Assistance.** This third step involves having your team study all the information from different perspectives. The team will be a great asset because differing views, based on knowledge and experience of the same issue, will lead to a better result and a more collaborative environment.

4. **Creativity.** This fourth step involves having the team “brainstorm” options and the consequences of those options. Again, the team will be a great asset because of differing views based on knowledge and experience.

5. **Hit it.** This last step involves implementing the best option. The team will help develop a plan to implement the selected option. After the option has been implemented, evaluation of the option and its implementation will need to take place. Questions to evaluate the implementation should be the same as the IRISE method of problem solving.

CONFIRMATION OF TEACHING POINT 3

QUESTIONS

Q1. For what kind of approach was the TEACH method of problem solving developed?

Q2. The TEACH method of problem solving is much like what other method of problem solving?

Q3. List the five steps to the TEACH method of problem solving.

Unofficial convenience copy of A-CR-CCP-803/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-803-PF-001/A-CR-CCP-803-PF-001.pdf.
Verify against the official publication.

ANTICIPATED ANSWERS

A1. For a team approach.

A2. The IRISE method.

A3. The five steps to the TEACH method of problem solving are:

- time,
- exposure,
- assistance,
- creativity, and
- hit it.

Teaching point 4 **Conduct an Activity Where Cadets Will Select a Problem-Solving Method and Apply it to a Scenario**

Time: 25 min Method: In-Class Activity



Use all four scenarios located at Annex E. Distribute evenly among cadets (eg, four cadets receive scenario 1, four cadets receive scenario 2, three cadets receive scenario 3 and three cadet receive scenario 4).

ACTIVITY

OBJECTIVE

The objective of this activity is for cadets to select a problem-solving method and apply it to a scenario.

RESOURCES

- Scenario, and
- Pen/pencil.

ACTIVITY LAYOUT

N/A.

ACTIVITY INSTRUCTIONS

1. Distribute one scenario to each cadet.

2. Cadets shall choose a problem-solving method and apply its steps to the scenario. Cadets will write down their method and steps on the scenario paper.



Cadets may choose any method to solve the problem including Logical Analysis, IRISE or TEACH.

Unofficial convenience copy of A-CR-CCP-803/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-803-PF-001/A-CR-CCP-803-PF-001.pdf.
Verify against the official publication.

3. After 10 minutes, have the cadets find everyone else in the class who has the same scenario. Cadets will share their ideas within the group.

4. After 5 minutes, have each group present their scenario to the class with the problem-solving methods and their possible solutions.

SAFETY

N/A.

CONFIRMATION OF TEACHING POINT 4

The cadets' participation in the activity will serve as the confirmation of this TP.

END OF LESSON CONFIRMATION

The cadets' participation in the problem-solving activity will serve as the confirmation of this lesson.

CONCLUSION

HOMEWORK/READING/PRACTICE

N/A.

METHOD OF EVALUATION

This EO is assessed IAW A-CR-CCP-803/PG-001, Chapter 3, Annex B, Appendix 1 (303 PC).

CLOSING STATEMENT

It is important to practice the skill of problem solving. Learning to solve problems is a leadership skill. Cadets have a greater chance of success in solving problems if they have a variety of problem-solving methods to choose from.

INSTRUCTOR NOTES/REMARKS

N/A.

REFERENCES

C0-115 (ISBN 0-7879-4059-3) van Linden, J. A., & Fertman, C. I. (1998). *Youth Leadership*. San Francisco, CA: Jossey-Bass Inc., Publishers.

C0-134 (ISBN 0-7852-7440-5) Maxwell, J. (1999). *The 21 Indispensable Qualities of a Leader: Becoming the Person Others Will Want to Follow*. Nashville, TN: Thomas Nelson Publishers.

C0-135 (ISBN 0-7645-5176-0) Loeb, M., & Kindel, S. (1999). *Leadership for Dummies*. New York, NY: Hungry Minds, Inc.

Unofficial convenience copy of A-CR-CCP-803/PF-001, cached 2026-11-08 from https://app.cadets.gc.ca/cadet-publications/A-CR-CCP-803-PF-001/A-CR-CCP-803-PF-001.pdf.
Verify against the official publication.