

# 11.4 Developing and Implementing a Project Plan

*MathLinks 9, pages 440–443*

## Step 1: Develop the project plan.

You may wish to refer to your work on **BLM 11–9 Section 11.2 Math Link**.

- a) Write the research question. Check that your question is clearly written and free of influencing factors.

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- b) Write the hypothesis. Be specific and limit your hypothesis to one sentence.

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- c) Identify and describe the population.

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- d) Describe how you will collect data from studies and surveys that have already been done. Where will you look?

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- e) List at least three studies related to your research question. Include complete source information. Record your notes for the studies on **BLM 11–11 Section 11.3 Math Link**, on index cards, or on a separate sheet of paper.

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**Step 2: Create a rubric to assess your project.**

Use **BLM 11–12 Research Project Rubric** to create your rubric.

**Step 3: Continue to develop the project plan.**

- a) Describe how you will organize and display the data.

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- b) Describe your method for analysing the data from the studies you find. Consider the following ideas.

- Describe any assumptions that were made. Explain the limitations of each assumption.
- Discuss the accuracy of any predictions made about the population.

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- c) Describe how you will present your findings. You might choose a written or oral report, use technology, or use a combination of formats.

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**Step 4: Complete the project according to your plan.**

- a) Display and analyse the data on separate sheets of paper.
- b) Draw a conclusion or a prediction you can make from the data.

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c) Evaluate the research results. Consider using the following questions.

- Do the data answer your question or do you need to do further research?
- Do the data support your hypothesis? Explain.
- Are the data biased? Explain.
- What questions could you ask as a result of your research?
- What other sampling methods could have been considered?
- Troubleshoot any problems you had, such as the following:
  - Was your research question too broad?
  - How well were the data collected?
  - Were there influencing factors on the collection of data? If so, what were the influencing factors?

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### Step 5: Present your findings.

Present your findings in a format of your choice. Check off each item as you include it.

- ☐ a title indicating the purpose of your project
- ☐ a research question and a hypothesis
- ☐ a description of the population
- ☐ for the studies researched,
  - \_\_\_\_ the sampling methods used
  - \_\_\_\_ the methods used to collect data
  - \_\_\_\_ the results and conclusions
- ☐ your display of the data and data sources
- ☐ your conclusion to answer the research question
- ☐ your evaluation of the research results
- ☐ a bibliography of all sources

## Step 6: Self-assess your project.

Use the rubric you developed to assess your research project.

- a) For which criteria was your project strong? Explain.

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- b) For which criteria was your project weak? Explain.

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- c) Did the project meet the requirements you set?   YES   NO   Explain.

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- d) Identify two things you liked about your project.

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- e) Identify one thing you would do differently next time.

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- f) Have a classmate who read or watched your presentation assess your project using the rubric. Ask for constructive feedback on how to improve the project.

- g) List the most useful feedback you received. Use the list to improve your project.

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