3. General mold cavity airflow design guidelines must be established for use in other cavity
design by Solo Cup personnel.
4. A prototype female mold cavity insert will be made by Solo Cup from drawings provided by
the project team for testing by the project team for improved airflow efficiency.
5. Drawings and all findings must be returned to Solo Cup Company with recommendations.
6. Specific recommendations will be made to Solo Cup for further testing and implementation of
the new design.
7. All recommendations must meet a one-year payback.

Objectives
The objectives form a “battle plan” for the project, and are essentially a breakdown of the
logical steps or accomplishments that must be completed to achieve the overall project
goals. The Objectives give the reader a high-level problem solving “algorithm” of all the
major tasks that must reasonably be accomplished to complete the project. Write the
Objectives from the standpoint of asking, “What do we do?” The objectives form a list of
high-level tasks that are necessary to complete the project. The Objectives should be
established in the first 2-4 weeks of the project. These will be used to direct the effort for the
rest of the project, and may be subject to some revision as the project progresses. The
Objectives form a reasonable structure, not only for the work on the project, but also for the
rest of your report. Note that the Objectives given in the example below closely match the
example Table on Contents given above for the Solo Cup report.

The Objectives should be a numbered list of items with one or two sentences of explanation.
If the Objective is almost self explanatory, use only one sentence of explanation. If more
explanation is necessary, then a second sentence may be used. The Objectives should not
be written as a mini-report of the work you have already accomplished, what it means, etc.
Save all of that for the Body of the report. Write the Objectives with a viewpoint from the
beginning project just after the first plant trip and first few advisor meetings when the
objectives were first established.

Note that the first objective should be “Analysis of Current (Process/Product/System, etc.) “.
This Objective is done to establish the current status, costs, metrics, design goals, etc. for
the project. See more details about this in the Initial Analysis section in Chapter 2. In some
cases, it may be appropriate to begin with a “background” section to give the reader more
technical information about the context of the project. This is the case in the example
below.
The Objectives can be listed after a single sentence such as, “The following objectives were determined to be necessary for the successful completion of this project:”

The Objectives should follow immediately after the Problem Statement with no page break. A sample list of objectives is given below.

Objectives

The following objectives were determined to be necessary for the successful completion of this project:

1. **Review of Thermoforming Process.** The entire thermoforming process must be understood with the forming insert as a integral component in the overall process.

2. **Analysis of Current Mold Cavity Design.** The current female molding insert will be analyzed for airflow efficiency using design drawings and CFD (computational fluid dynamics) software.

3. **Design Alterations.** Weaknesses will be identified from the analysis of the current design allowing modifications to be made to improve airflow efficiency.

4. **Prototype Testing.** Prototypes of the new design will be produced and tested for airflow efficiency to validate CFD results.

5. **Economic Analysis.** Based on the prototype testing, the best designs will analyzed in financial terms meeting the mandatory one-year payback.

6. **Conclusions.** A summary of the findings obtained from experimentation are related to project goals and objectives, including financial and technical benefits as well as further considerations.

7. **Recommendations.** Based on testing and financial viability, a course of action and design changes will be recommended. General design guidelines for female molding inserts will be established and presented.

**Body**