



Activity: System Analysis

Here is a simple example of how you analyze a system. Working in groups, make a simple sketch of the process, indicating distances, weight, time, batch size, and physical movements required. For example an employee picks up a 40 pound part from stock, carries it eight feet, machines it and then places the part on a trolley.

Sketch the process.

Note the flow of work. What non value-added work is being performed?



These are some of the points you likely identified in your group:

Non Value Work	
<i>Actions</i>	<i>Results</i>
<ul style="list-style-type: none">• excessive walking• bending• reaching	<ul style="list-style-type: none">⇒ inefficient⇒ creates variability⇒ creates fatigue

Physically Demanding Work	
<i>Actions</i>	<i>Results</i>
<ul style="list-style-type: none">• carrying a 40 lb. part while walking• obtaining raw material from lower levels• bending and reaching	<ul style="list-style-type: none">⇒ fatigue, mistakes⇒ possible injury⇒ quality problems if fatigue causes carelessness

Working in small groups, redesign the function examined in this activity. Your overall aim is a work flow that is capable of producing consistent quality. Variability within the work flow should be kept to a minimum. The design should also minimize any walking or reaching, eliminate bending, and greatly reduce the amount of physically demanding work.

Examine the proposed solution to ensure it does not contain additional problems.