

Problem Solving: Introduction

Assignment 1

You will work in groups of three to create a PowerPoint presentation that illustrates how the design process works using a practical, real situation. The problem you solve could be a physical problem (like my Orchid problem), or it could be a process problem, i.e. "I had a lot of trouble getting up in the morning."

Your presentation should include a slide or two illustrating each of the following:

1. A definition of the problem
2. Any research you had to do after solving your problem
3. Some alternate solutions you came up with for your problem
4. An explanation of which solution you chose, and why
5. Anything that went wrong when you executed your solution
6. What your next steps were.

Limitations (Context)

Your presentation shall:

1. Have the diagram of the *Design Development Process* on the first title page (take a screen shot from this presentation).
2. Contain no more than 15 additional slides
3. Take no more than 5 minutes (context in the problem you have to solve here)
4. Be presented by all three group members!!!

Good Presentations Show That:

1. The road to success is:
 1. Paved with failure!!
 2. Dotted with many tempting parking spaces!!
 3. Always under construction!!
2. [Success is going from failure to failure without losing enthusiasm.](#)
3. [The only place where success comes before work is in the dictionary.](#)

Assignment 2

After our presentations we will write a letter to a friend that:

1. Illustrates the design development cycle using two examples discussed in class
2. Shows how this same basic process is applicable (how it shows up) all over the rest of the world as well.

I will provide a sample completed letter assignment before you complete it.

Presentation Rubric

Assessment of: _____

By: _____

Content:

<input type="checkbox"/> A clear, useful introduction	<input type="checkbox"/> An ordering strategy that helped you understand the material being presented	<input type="checkbox"/> Explanation of examples, that helped illustrate the points being made.	<input type="checkbox"/> A useful conclusion that expanded on the ideas presented and improved understanding of material discussed.
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Problems/Suggestions for Improvement:

Delivery:

<input type="checkbox"/> Not Reading <input type="checkbox"/> Eye contact with audience	<input type="checkbox"/> Limited “verbal twitches” (“ummm,” “like”), <input type="checkbox"/> positive body language	<input type="checkbox"/> Presented at a reasonable speed	<input type="checkbox"/> Could be heard <input type="checkbox"/> Use of inflection
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Problems/Suggestions for Improvement:

Mark (Level):

Letter Rubric

	Level 1	Level 2	Level 3	Level 4
Knowledge and Understanding				
Understanding of Topic Addressed	Minimal understanding of argument	Gaps in argument evident	Clear understanding of ideas presented	Demonstrates through understanding of problem solving
Inclusion of Examples Drawn From Discussion	Examples are present but may not be described fully	Examples are present but connection to argument is not entirely clear	Examples are present and support argument	Examples are present and expand argument
Communication				
Use of Ordering Strategies	Some order present but limited connections evident between elements of argument	Occasional but significant breaks in argument evident	Minor breaks in argument evident	Transparent: Argument is clearly developed and easy to follow
Critical Skills Evident	Able to provide some analytical explanation of process	An explanation of problem solving is presented but may contain significant gaps	Explanation presented is clearly with a minimal number of problems evident	Thoughtful consideration of topic discussed with a subtle response explained clearly.
Application				
Clearly Stated Argument	Reader has to establish thesis (not evident in text) and development of argument presented is not clear	Ideas presented are clear, but may not be clearly developed, or were not reflected in thesis	Ideas developed well with supporting evidence used appropriately to illustrate, explain ideas expressed	A clearly developed argument using strategies that are compelling
Examples Explained	Some attempt at explaining the relationship between the example and the real world	Doesn't necessarily develop relationship between evidence and real world examples or relationship is not clear	Relationship between evidence and argument is adequately explained, clear and consistent.	Relationship is clear, consistent, compelling, sophisticated.

level 1 → 50-59%, level 2 → 60-69%, level 3 → 70-79%, level 4 → 80-100%

Level 0	1	2	3	4
0—12	13—14	15—17	18—19	20—25