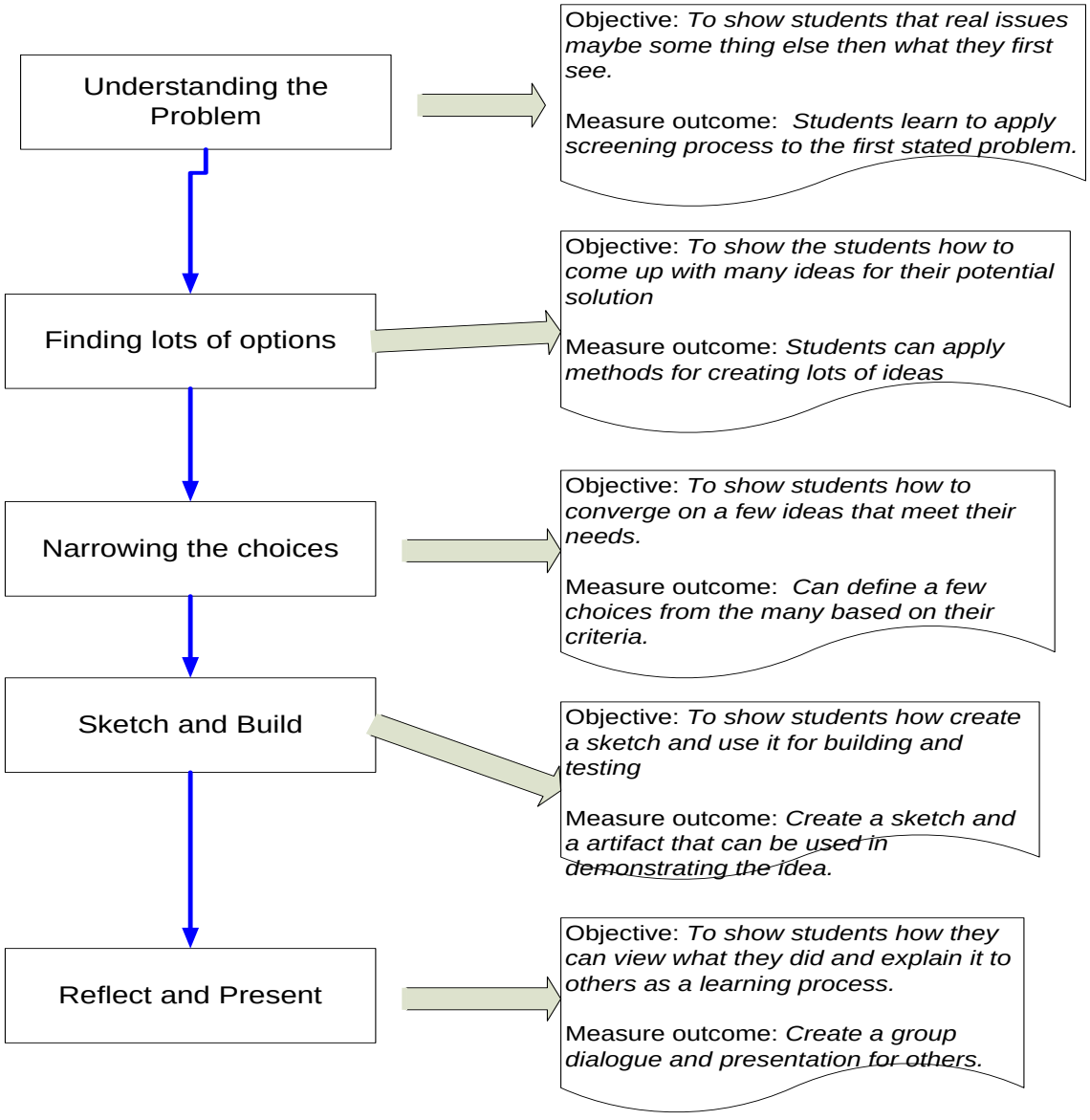
MLW Workbook … DESIGN PROCESS

Design and Tinkering:

Tinkering is a playful style of design by making constant experiments and exploring new ideas in the design process.

It is celebrating the iterative and divergent/ convergent process that is part of the design process.

What is a Bug/Problem … Let children explore the essencial question What is a problem and how to you solve it?



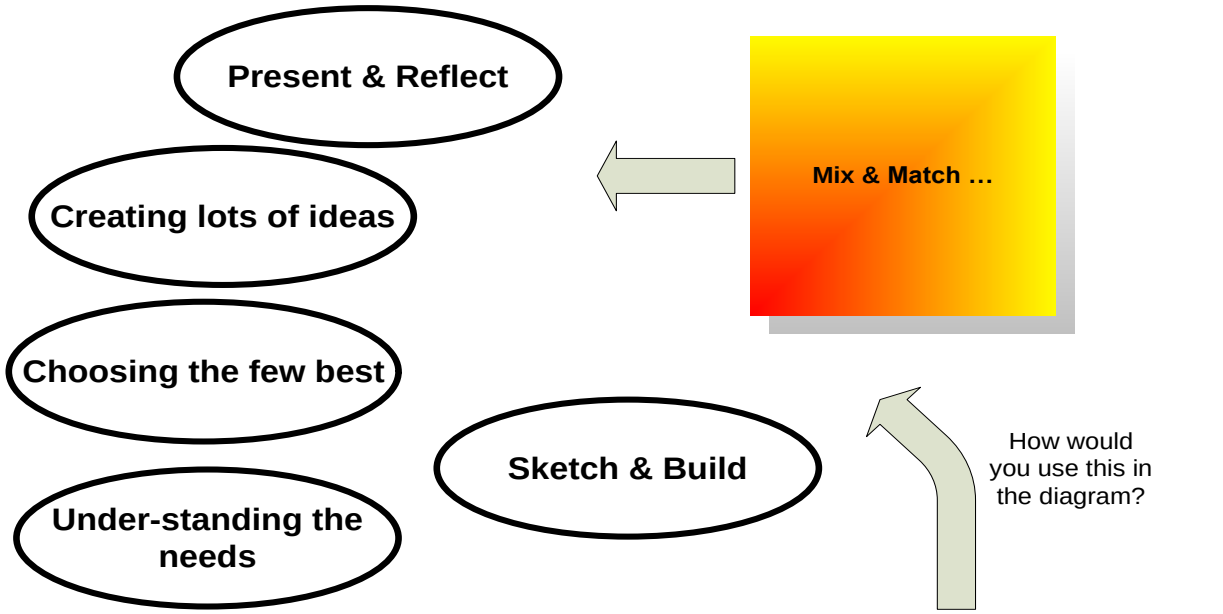
MLW Workbook … DESIGN PROCESS

Exercise with the Children:

Part to Whole Exercise

Objective; Showing a system view of the process of Design/ Problem solving
Also, these exercises can help the student learn about the process.

Re-order these tasks

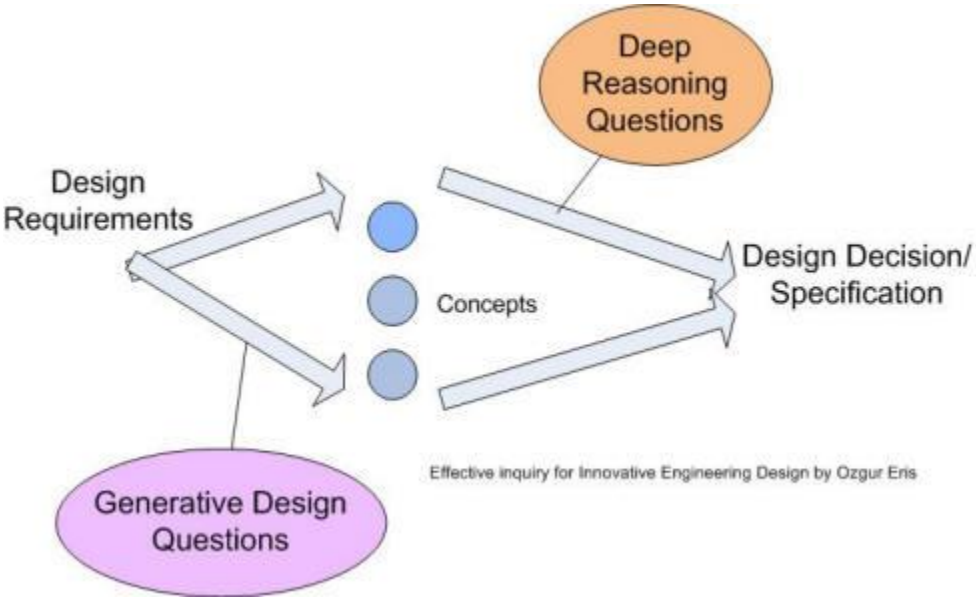


Can we do 3 out of 4 as the right answers?

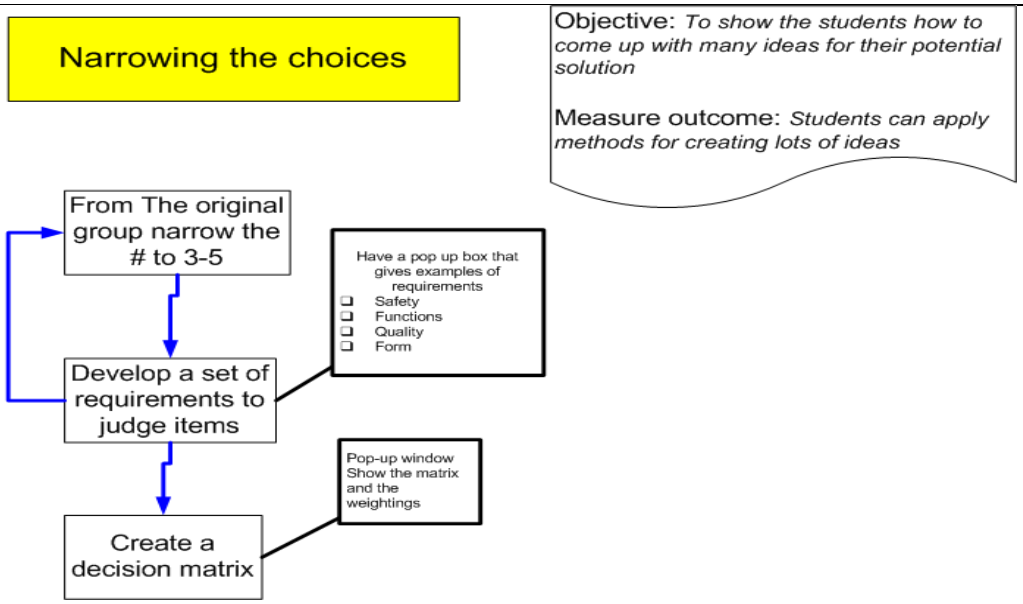
- ❑ Why is it important to first study the problem?
  - ❑ May solve the wrong problem
  - ❑ Your teacher may help you
  - ❑ People may be upset with your solution
  - ❑ You may miss having fun.
- ❑ What do you do when you reach a road-block?
  - ❑ Ask a teacher for help
  - ❑ Try doing the same thing again
  - ❑ Learn from what happened and try a new hypothesis
- ❑ How do you choose a way to start tackling the problem?
  - ❑ Research the root cause of the problem
  - ❑ Ask your teacher for help
  - ❑ Just begin anywhere

Questions to answer about project

MLW Workbook … DESIGN PROCESS

Problem Identification:
Research and identify Needs (Requirements)
Design Process: The design process is a series of questions. We generate many ideas with "Generative Design" questions and then make our selection with a series of "Deep Reasoning' questions It's the divergent and convergent process. Ozgie Eris @ Olin College 
Shaping… Take all the ideas and sort them into 3 buckets: Ordinary, Stretch, and Blue Sky (Magical). Looking at the Ordinary and Blue Sky try to see what you can do to move them into the Stretch category.
Narrowing the Choices … In stories, we find many design challenges the characters have. The students need to follow this process to design a solution for that interesting design challenge. Select a solution, based on the requirements:

MLW Workbook … DESIGN PROCESS



Decision Matrix's
Building and Testing:
Reflections and Assessing the Design:
Updating Ideas:
Reporting and Presenting