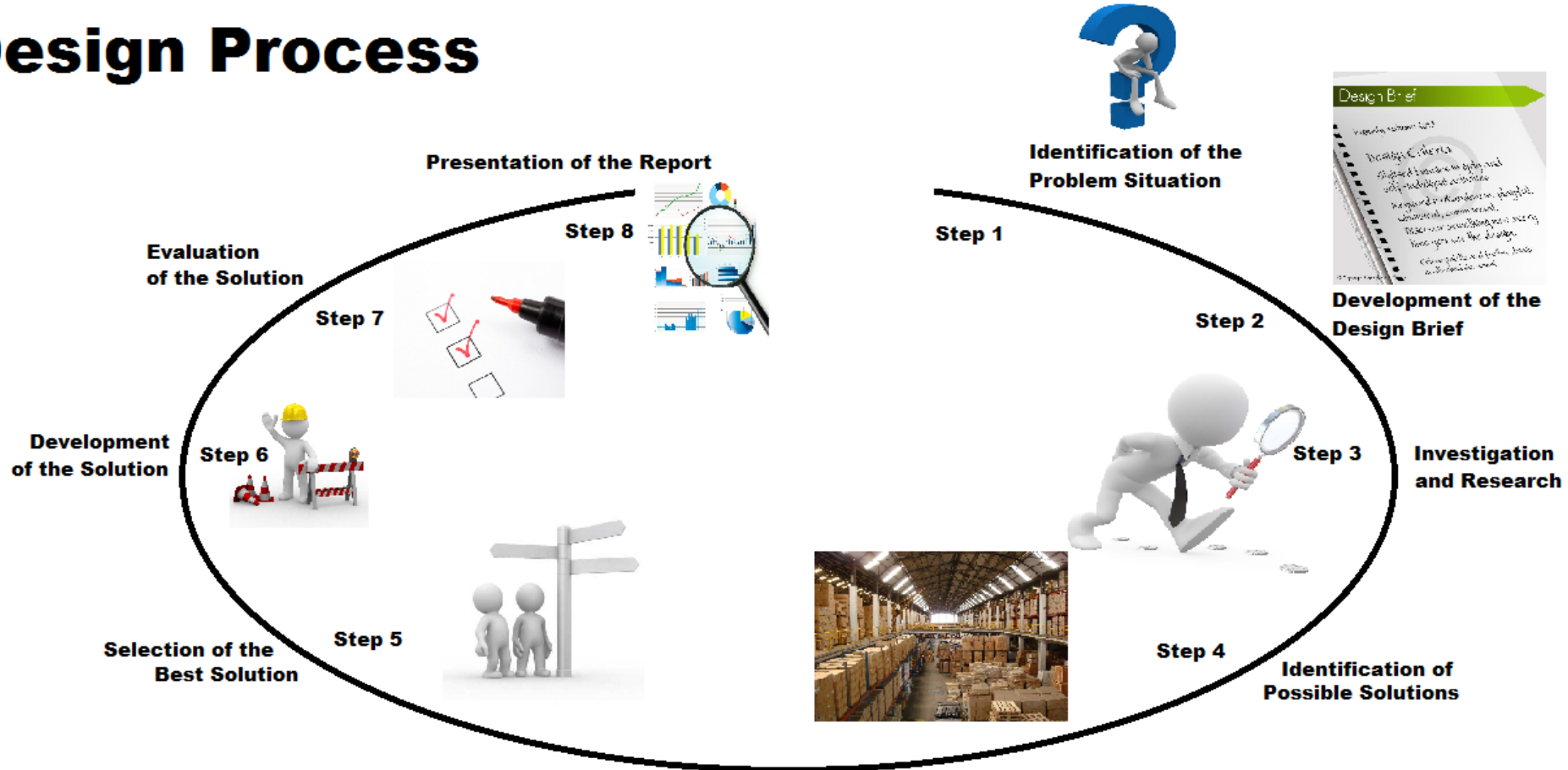




8-Step Design Process

How To Solve Design Problems

Design Process



Step 1 – Identification of the Problem Situation

- What's the problem?
- Safety?
- Wheelchair accessible?
- Alternative energy?
- Layout for best use of space?
- Economical?





Step 2 – Development of the Design Brief

- Short description of the problem situation
- Statement of a specific problem
- Criteria (conditions and limitations) affecting the solution
- Expectations of the solution
- What the designers are expected to do or deliver

Step 3 – Demonstration of Investigation & Research

- Research into similar problems and their solutions
- Resources to solve the problem



Step 4 – Identification of Possible Solutions

- This seems to be the most mis-understood step
- Generate MULTIPLE solution ideas (as many as you can)
- Divergent thinking
- Innovation
- Spontaneity
- Quantity over quality
 - The *number* of ideas is better than the *caliber* of each idea



Step 5 – Selection of the Best Solution

- Create a list of criteria (based on the Design Brief)
- Evaluate each idea (give it a grade like 5 out of 5)



Step 6 – Development of the Solution

- Build the prototype:
 - Cardboard
 - Utility knife
 - Ruler
 - Pencil
 - Square
 - Bristol Board
 - Wood Glue



Step 7 – Evaluation of The Solution

- This is similar to Step 5 (Selection of the Best Solution)
- Develop a criteria
- Grade your prototype on each criteria

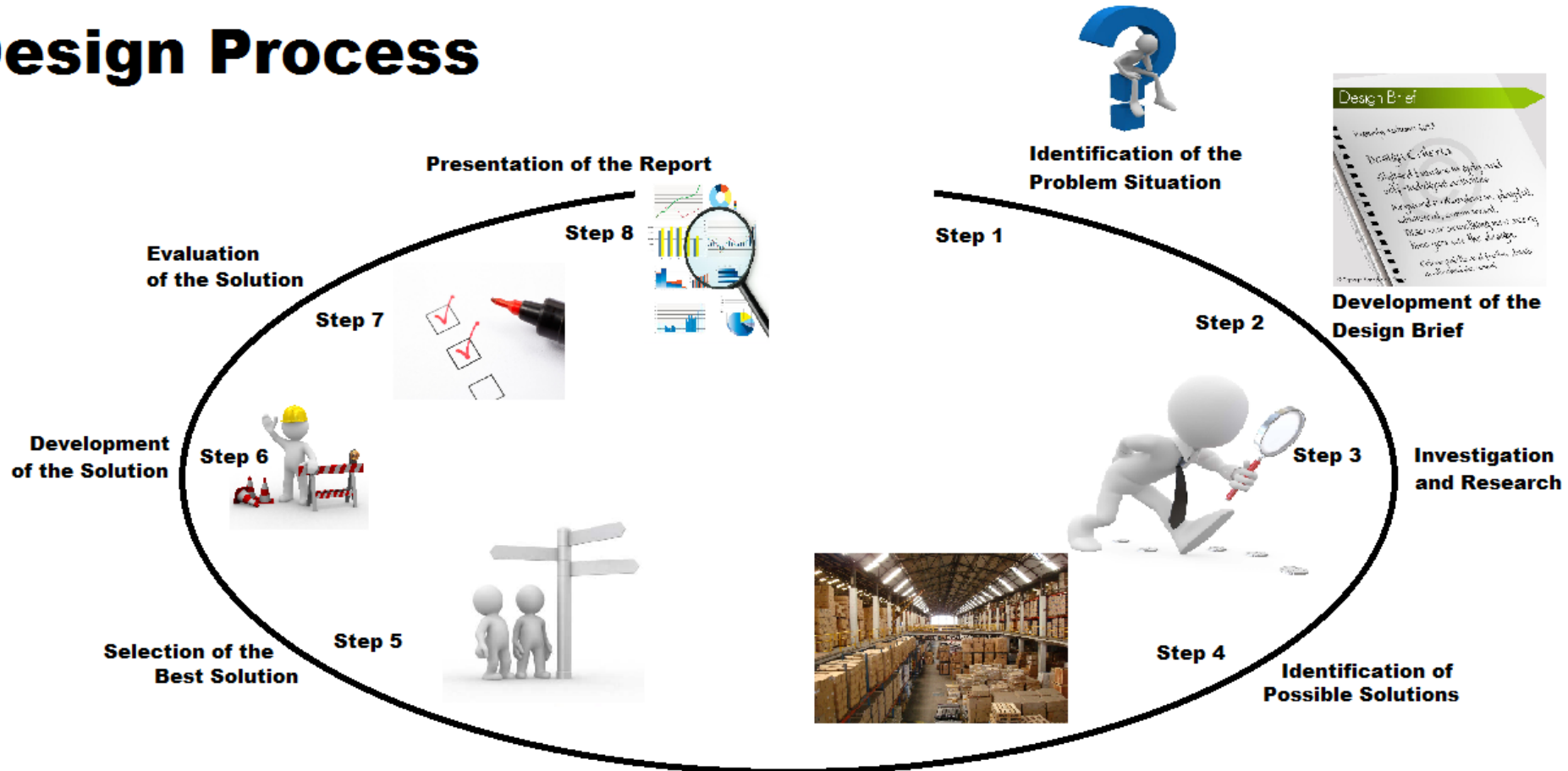




Step 8 – Presentation of The Solution

- Create a slide show of your design process
- Include free-hand drawings
- Include any virtual videos (Blender or Google Sketchup)
- Include pictures of your team at work
- Practice your slide show
 - Face your audience
 - Speak clearly (use volume and projection in your voice)
 - Make eye contact (work the room)

Design Process





END

- *Created by Mr. Davis for Xavier Junior High*