

This excerpt is from the project entitled “The Design and Creation of a Modified Posture Corrective Apparatus for Adolescent Females”

Element J: Documentation of external evaluation

This entry would be likely to receive a **score of 0**, based on the EDPPSR.

The student(s) merely indicated that there were no experts consulted other than the project mentor, and identified one recommendation made by that mentor (along with a rationale). Thus, documentation of project evaluation may be considered minimal at best.

It is important that students understand that documentation of project evaluation can come from a wide variety of sources—any and everyone who is a demonstrably qualified stakeholder and/or field expert. Aside from their teacher/mentor, all students have greater access to sources than they may initially recognize.

**Engineering Design Process Portfolio Scoring Rubric  
Component and Element Titles**

**Component I: Presenting and Justifying a Problem and Solution Requirements**

- Element A: Presentation and justification of the problem
- Element B: Documentation and analysis of prior solution attempts
- Element C: Presentation and justification of solution design requirements

**Component II: Generating and Defending an Original Solution**

- Element D: Design concept generation, analysis, and selection
- Element E: Application of STEM principles and practices
- Element F: Consideration of design viability

**Component III: Constructing and Testing a Prototype**

- Element G: Construction of a testable prototype
- Element H: Prototype testing and data collection plan
- **Element I: Testing, data collection and analysis**

**Component IV: Evaluation, Reflection, and Recommendations**

- **Element J: Documentation of external evaluation**
- *Element K: Reflection on the design project*
- Element L: Presentation of designer’s recommendations

**Component V: Documenting and Presenting the Project**

- Element M: Presentation of the project portfolio
- Element N: Writing like an Engineer

**Please Note: Elements M and N require no submission from the portfolio author(s) and are intended to be scored based on the portfolio work as a whole from what has been submitted from Elements A through L**

## **Element J: Documentation of external evaluation**

- 5** Documentation of project evaluation by multiple, demonstrably qualified stakeholders and field experts is presented and is synthesized in a consistently specific, detailed, and thorough way; documentation is sufficient in two or more categories to yield meaningful analysis of that evaluation data; the synthesis of evaluations consistently addresses evaluators' specific questions, concerns, and opinions related to design requirements.
- 4** Documentation of project evaluation by two or more demonstrably qualified stakeholders and field experts is presented and is synthesized in a generally specific, detailed, and thorough way; documentation is sufficient in at least one category to yield a meaningful analysis of that evaluation data; the synthesis of evaluations generally addresses evaluators' specific questions, concerns, and opinions related to design requirements.
- 3** Documentation of project evaluation by three or four demonstrably qualified stakeholders and/or field experts is presented and is synthesized in a somewhat specific and detailed way, but may not be thorough; documentation may not be sufficient in any category to yield a meaningful analysis of that evaluation data; the synthesis of evaluations addresses at least some of evaluators' specific questions, concerns, and opinions related to design requirements.
- 2** Documentation of project evaluation by two or three representatives of stakeholders and/or field experts (some of whom may not be demonstrably qualified) is presented and is synthesized in a somewhat specific and/or detailed but incomplete or overly general way; the synthesis of evaluations addresses at least a few of evaluators' specific questions, concerns, and/or opinions related to design requirements.
- 1** Documentation of project evaluation by one or two representatives of stakeholders and/or field experts is presented but synthesis is sparse, with few specifics/details; the synthesis of evaluations addresses only one or two of an evaluator's questions, concerns, and/or opinions related to design requirements.
- 0** Documentation of project evaluation by any representative stakeholder or field expert is nonexistent OR if included is minimal; synthesis is minimal or missing and if present, does not address any questions, concerns, or opinions of an evaluator related to design requirements.
- .....

Excerpt from the "Reflective Questions for Students" Document regarding Element F from the Innovation Portal Resources files;

- **What do end-users and experts directly related to this project and problem statement think of the testing results and my/our conclusions about the effectiveness of this idea?**



## The Design and Creation of a Modified Posture Corrective Apparatus for Adolescent Females

DOCUMENTATION OF EXTERNAL  
EVALUATION J

There were no surveys or experts consulted other than Dr. Michael Sanders who recommended that I not make the lower torso brace bigger than it already is because otherwise it will dig into the wearer's stomach when he/she sits down.

A

B

C

D

E

F

G

H

I

J

K

L

M

N