INCORPORATING SIX SIGMA CONCEPTS INTO THE TECHNICAL COMMUNICATION CLASSROOM

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Outline

- What is Six Sigma
- The Pugh Concept Selection Matrix
- How I learned of the Matrix
- Implications for Instruction
- Problems With Implementation
- Questions
What is Six Sigma?

- A business management strategy developed by Motorola in the 80s
- “a vision; a philosophy; a symbol; a metric; a goal; a methodology.”
- A toolbox of quality and process improvement techniques
- A form of “Total Quality Management (TQM)”
- Some say “the most popular management methodology in history.” (others less enthusiastic)
The Pugh Concept Selection Matrix

- “quantitative technique used to rank the multi-dimensional options of an option set.” (wikipedia)
- a great way to more methodically make a tough decision as a group, and leave behind a record of why we made it.” (Lean Software Engineering)
- “a simple and effective way of driving synergistic problem solving” (manufacturing.net)
Non-traditional “business-model Enterprise Class”

Student-run “real-world” class solving design and manufacturing problems for industry

Industrial partners use Six Sigma methodologies

PCSM an important part of engineering design analysis in these companies

Subsequently an important part of internal technical communication
Can give students an insight into how engineering analysis is conducted in many organizations

Can replace a lot of text in documents

Can serve as an introduction into the TQM philosophy as well as helping students construct technical documents
Difficulties with teaching the PCSM

- Need to know it
- Need to incorporate it organically in class
- Involves stripping it of full TQM context – no black belts awarded
Questions