

NORTHROP GRUMMAN

A Place for Peer Reviews

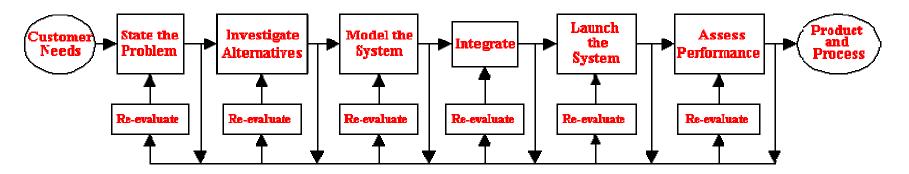
Ruth Belanger Northrop Grumman Aerospace Technology 16 April 2009

Current Case for Peer Reviews



- Academia
- Publications and journals (juried)
- Legal: inventions, patents
- System engineering: a basic standard (the evaluate and re-evaluate steps)

The Systems Engineering Process



2 This figure is from Bahill and Gissing (1998).

What Exactly is a Peer Review?



- Review by a person/people familiar with—but not too close to—the discipline used to create the product
 - In academia, it is another student, someone of equal abilities
- Doesn't have to be written—may be conceptual
 - Can be a white paper or a formal deliverable
- Someone who is in the position to be honest, not a best friend or spouse

Purpose of the Peer Review



- Review the logic of an idea, concept, or written document
- Challenge the assertions, justifications, and rationale
- Based on the maturity of the document, provide feedback on the grammar, syntax, and organization
- Run it by someone else before the boss!

Peer Review Preparation



Determine up front

- What you want to know
 - An early review of a conceptual or rough draft may have fewer reviewers looking at broader concepts
 - A middle review might be focused on the structure of the document and how text interacts with figures
 - A later review includes all of the above—plus grammar, syntax, and
- How you want the feedback
- How many people you want for the review

Peer Reviews at Various Writing Stages



Writing Stage	Reviewer	rs Focus	Product	Outcome
First Rough	1 or 2	Concept,	Comment	Direction
Draft		logic	Discussion	change
Second or	2 or	Text-figure	Comment	Tighten
Third Draft	more	flow	Redline text	flow
Publication	1 or 2	Grammar	Redline text	Grammar
Ready		syntax	Comments	Minor fixes

Possible Products



- Reviewer "works" for you
 direct their work to
 meet your needs
- Begin with the end in mind
- Provide the evaluation criteria or requirements
 - If too rough, don't have reviewer look at grammar

- Forms (many examples on the internet)
- Comments
- "Red-lined" document
- Suggestions
- Others who can provide additional insight

General Author Directions



DOs

- Think of the review as a collaborative effort
- Listen to all comments (they took time...)
- Take time to understand the comments
- Be available to return the favor
- Thank the reviewer!

DON'Ts

- Argue with the reviewer or justify your position
- Wait until the last minute to ask for a thorough review

General Reviewer Directions



DOs

- Set aside time to perform the task
- Use the evaluation criteria to focus your review
- Provide meaningful feedback that directs rewrite
- Be available for follow up questions

DON'Ts

- Accept the assignment if you can't, won't do it right
- Make vague comments
- Nit-pick
- Insert known personal biases

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