Axiomatic Improvement

An expert is an individual possessing special skill or knowledge representing mastery of a particular subject. Webster defines wisdom as accumulated philosophic or scientific learning, the ability to discern inner qualities and relationships, good sense, and a wise attitude or course of action. Even after more than 15 years of working in and managing a software engineering organization utilizing model based process improvement, I still cannot claim to be an expert on capability maturity models. However, I have accumulated some amount of wisdom regarding the subject. Drawing from those years of experience and acquired wisdom, I believe the following list of my thoughts and observations on the subject of software process improvement to be axiomatic:

1. There is always an opportunity (often a great need) for process improvement in software development endeavors.
2. Properly implemented model-based process improvements can produce real, frequently significant improvements.
3. The Capability Maturity Model and all of its derivatives are excellent tools, but none of them are perfect (there is always an opportunity for improvement even within the models themselves).
4. Implementing process improvement requires change, and affecting change is hard, tedious work.
5. Process improvement activities must be planned and managed like any other complex project in order to have any hope of success.
6. Not all organizations, projects, teams, or individuals accept change in the same way or at the same rate.
7. Not every attempt at process improvement works.
8. Every non-attempt at improvement is a guaranteed failure to improve – unfortunately, improvement doesn't occur on its own.

The articles in this issue of CROSSTALK do an excellent job of expanding on nearly all of my personal observations. Watts S. Humphrey, Dr. Michael D. Konrad, James W. Over and William C. Peterson's article *Future Directions in Process Improvement*, and Mike Phillips' article *CMMI V1.2: What Has Changed and Why* both address the need for process improvement models to constantly evolve and change. Rushby Craig's article *Measure Twice and Cut Once* and George Jackelen's article *CMMI Level 2 Within Six Months? No Way!* describe the necessity for rigorous planning and oversight required for successful process implementation efforts. Dr. Jan Pries-Heje, Jørn Johansen, Mads Christiansen, and Morten Korsaa's description of the ImprovAbility Model in *The ImprovAbility Model* is a fascinating description of a new tool used to evaluate an organization's ability to improve. The tool identifies the numerous variables that come into play when an attempt is made at implementing process improvements within software organizations. We conclude with *Applying International Software Engineering Standards to Very Small Enterprises*. While I wholeheartedly believe in mature processes for software development, we must still implement these processes in ways that make sense for individual organizations. I hope you will enjoy reading the articles as much as I did. They may not make you an expert, but I'm certain you will gain knowledge and wisdom.

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