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# Discussão sobre os Artigos

Disciplina: SEP0280 – Qualidade Aplicada à  
Manufatura

16/08/2023

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# Artigo 1

- Ronald D. Snee
- Statistical Thinking and Its Contribution to Total Quality
- *The American Statistician*
- Vol. 44, No. 2 (May, 1990), pp. 116-121 (6 pages)

Presented at the 34th Fall Technical Conference  
**Statistical Thinking and Its Contribution to Total Quality**  
RONALD D. SNEE\*

**1. WE MUST RESPOND TO OUR CHANGING WORLD**

Much of American business has begun to respond to the new economic era in which we live. This response takes many forms. Much of it is aimed at improving the quality of everything we do. Many of us call this effort *total quality*. By aiming at total quality, our businesses will be competitive in global markets, the United States will continue to be a world leader, and we will continue to enjoy a high standard of living.

This attention to total quality has brought with it a renewed emphasis on statistics, and in particular, on *statistical thinking*. The purpose of this article is to emphasize our need for acquiring greater understanding of statistical thinking and its role in total quality. It is my view that this understanding is not adequately developed today and, as a result, we cannot successfully respond to our changing world and the need for total quality. I will present some ideas on how statistical thinking can be used to help achieve total quality.

**2. A MODEL OF TOTAL QUALITY**

Total quality is a difficult concept to understand because it is so broad and complex. I have been working on a model of total quality to aid my understanding and implementation (Snee 1986). The model I have developed (Fig. 1) has three segments that relate to levels of activity in an organization:

- Strategic—where the organization needs to direct its efforts in order to achieve total quality
- Managerial—systems that align the organization's operational activities with its strategic direction
- Operational—specific activities an organization engages in to pursue total quality.



Figure 1. A Model of Total Quality.

\* Ronald D. Snee is Manager, Quality Systems and Technology, Project Engineering Division, E. I. du Pont de Nemours & Co., P.O. Box 6090, Newark, DE 19714-6019. The author thanks Hugh R. Beason for helping to clarify the presentation of the ideas in this article.

Each part of an organization has its own views as to the meaning of total quality. Therefore, any model for total quality must help each part determine where the organization should direct its efforts. Each can focus on its own segment—for example, top management on strategic direction. Each person using the model must understand the whole model, however, in order to see how his or her part fits into the whole.

I emphasize that this model is generic and must be adapted to suit the needs of the organization that uses it. This is a key step; for as the organization adapts the model, it becomes "its own" and a part of how the organization does its business.

An overview of this model is given in the following sections. The objective is not to give a detailed description but to show the wholeness of total quality. It is important to note the linkage between the strategic and managerial segments of the model and similarly between the managerial and operational segments. This overview will enable us to see where statistical thinking plays its role.

*Ingredients of Total Quality.* The strategic segment of the model tells the organization what is required to achieve total quality. In Figure 2 we see that total quality has four key ingredients: management leadership, product quality and care of customers, people and teamwork, and constant improvement and innovation. The work of Deming (1986), Peters and Austin (1985), Joiner (1985), and Watson (1986) (also see Pascale and Athos 1981) indicates that these four key ingredients will move an enterprise most rapidly toward total quality.

It is critical that an organization work on all four ingredients. Total quality cannot be achieved without active programs that assure that each of the ingredients is given its proper attention. It is in this sense that I find the model most useful. I use it to evaluate the activities of any total-quality effort to see if all of the ingredients are being worked on and if greater emphasis may be needed.



Figure 2. A Model of Total Quality.

Reprinted from *The American Statistician*, May 1990 with permission from the American Statistical Association.

# Artigo 2

- Ashwin Srinivasan e Bryan Kurey
- *Criando uma cultura da qualidade*
- HBR Brasil Abril 2014



12 Harvard Business Review Abril 2014

# Dinâmica

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- 3 Equipes de até 4 estudantes (descritas no slide 5)
- 15h30 às 16h00 – Leitura individual dos artigos
- 16h20 às 17h00 – Elaboração das apresentações (postar apresentação por equipe em tarefa no e-Disciplinas)
- 17h00 às 17h30 – Apresentação dos trabalhos (10 minutos por equipe)
- 17h30: fechamento da aula e abertura da aula seguinte

# Equipes

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- Equipe A: Ana Carolina Junqueira Silva (acarolina.junqueira@usp.br); Ayslan de Carvalho Maximiano (ayslan.carvalho@usp.br); Gabriel Ortolani Oliva (gabrioo0011@usp.br); Isabela Alteia Mattioli (isabela.mattioli@usp.br)
- Equipe B: Amanda Doria de Santi (amandadsanti@usp.br); Ana Carolina Massaro de Campos (ana\_massaro@usp.br, 11800006) Giovana Limoni (giovana.limoni27@usp.br); Tulio Simprini Padula (tuliopadula@usp.br)
- Equipe C: Laiz Renata Pagliuzo (laizpagliuzo@usp.br); Leticia Paraguassu Bevilacqua de Souza (leticiaparaguassu@usp.br); Vitor Augusto Silva Souza (vitorx7@usp.br)

# Orientações para Apresentação

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- Elaboração das apresentações (postar apresentação por equipe em tarefa no e-Disciplinas)
  - Discutir os pontos de destaques dos artigos (o que chamou a atenção dos leitores)
  - O que não ficou claro na leitura dos artigos?
  - Qual a relação entre os artigos e com o curso de Eng. de Materiais e Manufatura?
- Apresentação dos trabalhos (10 minutos por equipe)
  - Poucos slides e objetivos
  - Focar em uma mensagem principal após a discussão da equipe
  - Respeitar tempo máximo de 10 minutos