

On Quality of Training Process Analysis

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Abstract

Quality of the training process is an important issue for both the trainers and learners. A good training model is essential for its successful implementation and learner fulfillment. The model produces the best results only if it operates under the optimal levels of the supporting parameters. In this paper, a methodology is proposed for quantitatively optimizing the quality of the training process and enhancing benefits for the learner. Orthogonal Arrays proposed under Taguchi's robust design methodology are employed for selecting an intelligent subset of the parameter space. Orthogonal arrays help in lessening the number of experimental runs, on the basis, of which controlled experiments are designed. The experiments are conducted through objective experimentations. The methodology is presented through a case study of real world training scheme entailing teaching and post training evaluation. This paper offers novel thoughts for improving the quality of the training processes. The case study presented and the results derived demonstrate the practicality of the approach that has been extremely successful in manufacturing. This paper shows that training processes can also be quantitatively understood in terms of the process features that affect the intention. In conclusion, the paper demonstrates that Taguchi robust design techniques can identify levels of controllable training process variables at which the outcome of quality variations is sustained at a minimum level. These in-process variables are used to establish and evaluate process performance.

Keywords: Software Process Quality, Robust Design, Taguchi Method, Analysis of Variance, Orthogonal Arrays, KLOC, Signal/Noise Ratio.

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