PHENOMENOLOGICAL VS. BEHAVIORAL OBJECTIVES
FOR TRAINING SKILLED PERFORMANCE*

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INTRODUCTION

The goal of this article is to determine the training methods that can most effectively develop highly proficient performance. The use of behavioral objectives for instruction and training is commonplace in educational, industrial and governmental environments. A phenomenological approach to training differs from a behavioral one in that it focuses on the way a task is experienced, rather than merely on the overt responses performed. It is suggested that a highly skilled performer experiences a task

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differently than a novice, and that methods which help develop such an experiential shift may be valuable for developing high proficiency performance. This article does not present specific details of a phenomenological approach, but presents reasons for believing that such an approach would be a valuable method for training. In addition the article does not claim that a phenomenological approach can replace more traditional methods, but suggests that a phenomenological approach can supplement traditional training methods by addressing some training issues that are not effectively handled by traditional methods.

The examples used in this paper primarily relate to the Air Force training environment, which is the area of greatest familiarity to the author. However, the arguments presented are relevant to the general issue of training for highly skilled performance.

MOLECULAR ANALYSIS OF COMPLEX BEHAVIOR

Air Force procedures for using behavioral objectives to develop training programs are described as the Instructional Systems Development (ISD) approach (Air Force Manual 50-2; Air Force Pamphlet 50-58). The Air Force ISD approach is based on the molecular analysis of complex behavior. It attempts to break a complex task down into a set of discrete steps. These steps may be performed either in a fixed sequence, or according to specific, pre-defined contingencies. Each discrete step has its own input conditions, required action, and criteria for success. For example, Air Force Pamphlet 50-58, Vol. 1, describes how the ISD process would be applied to the procedure of starting a jet engine. Each action (e.g., “Turn Fuel Boost Pump Switch ON”) is listed with an indication of success (“Fuel Boost Warning Light Goes OFF”) and a description of what action to take if the previous action has been unsuccessful.

The ISD approach is related to both stimulus-response and information-processing models in psychology. The analysis of complex performance into simpler discrete steps is related to some behaviorists’ use of Stimulus-Response chains to explain performance, and Air Force Manual 50-2 specifically states that the work on programmed instruction was one of the major influences on the development of ISD. Certainly the ISD approach