

Introduction

This section consists of four analytical discussions of the impact of Gagné's work in a variety of arenas. Gagné's career (as described in the Preface and Appendix A) was eclectic – encompassing research, teaching, administration, and the practice of instructional design. His work pertained to the general study of human learning, military research and training, the education of children, workplace education and training, as well as higher education. Consequently, not only the length of his career (more than 50 years) but the diversity of his work enables him to have a potentially enormous impact. The discussions here relate to his impact on instructional theory, instructional design practice, military research and development and on design using the new technologies. They highlight his work as both a basic and applied researcher.

Smith and Ragan give a comprehensive description not only of Gagné's contributions, but the pre-Gagné status of instructional theory. They describe the development of his theory over time and then analyze its influence on current instructional design procedural models as well as curriculum development processes. Smith and Ragan emphasize the scholarly integrity of Gagné's work as a key reason for its influential role.

Fields, on the other hand, looks at the interface between Gagné's theory and practice – school curriculum development, instructional design, and efforts to promote transfer of training in a variety of settings. In addition to Gagné's research efforts, Fields recounts Gagné's large-scale curriculum project, *Science: A Process Approach*, and describes its impact on school curriculum practice. This chapter emphasizes the propensity of Gagné's work to fundamentally address practical problems.

In Chapter Eight, Spector summarizes Gagné's work in the military at various times throughout his 50-year career. This discussion encompasses Gagné's stints in Air Force research laboratories and specifically, his work on the Guided Approach to Instructional Design Advising (GAIDA). This chapter gives readers an understanding of Gagné's personality, since it is laced with stories of Sector's interaction with Gagné on a personal level.

Finally, in Chapter Nine, Nelson examines the relationship between Gagné's theory and the design of technology-based instruction. He discusses not only hardware and software issues, but also the knowledge sources and practice of instructional designers. This chapter includes analyses of design models used for computer-based instruction, automated design tools, hypermedia, and intelligent tutoring systems.