Chapter 12

Investigation into the Taxonomy for the Technology Domain

Introduction

This final chapter on the Taxonomy for the Technology Domain provides a discretionary inquiry into the research base of this newest classification system. Similar to the historical evolution of the taxonomies of Bloom (cognitive), Krathwohl (affective), Kibler (psychomotor), Bruce and Levin (technology as media) and SeSDL (communications and information technology), a watershed text such as this is obligated to demonstrate the scholarly basis upon which the new classification schemata is built.

This investigative chapter may be bypassed by readers preferring instead to concentrate on the theoretical foundations and practical applications found in the previous chapters. That is both understandable and anticipated. Certainly, for teachers-as-learners described in the foreword and advanced throughout the predominant chapters of this text, the importance of the new taxonomy lies in its underpinnings on the foundations of educational theory and the principles of teaching and learning that apply to the uses of technology in the classroom. For the teacher-as-expert, the text generates a wealth of relevant applications of the new taxonomy with its six levels based on standards, identified technologies, and possible action statements that serve to move the classroom teacher into the design of appropriate student learning objectives.
This chapter completes the development of the Taxonomy for the Technology Domain for professional educators by considering the teacher-as-scholar as well. From such humble beginnings will come future expansions of the scholarly base from which the Taxonomy for the Technology Domain must eventually mature. It took nearly 50 years of learned scrutiny for Bloom’s Taxonomy to emerge as the predominant psychology for instructional design. This final chapter delivers the “opening volley” of a research base that will ultimately support technology as a domain for teaching and psychology for learning in its own right. The investigation exposed herein and the ensuing questions and issues it raises represent the necessary imperative prior to widespread acceptance of this theoretical construct. More is certain to follow.

Recapitulation of Research Phases I and II

You will recall that the results of an initial inquiry into the use of the new taxonomy for preparing technology-based classroom applications was shared as an integral component of previous chapters. The Phase I research offered in each of these chapters sought to establish quantitative support for the use of the taxonomy in real-world learning environments. It described the number of lesson plans found to contain technology-based learning objectives in the cognitive, affective, and psychomotor domains of teaching as well as the behavioral, cognitive, and humanistic psychologies of learning.

Phase II ranked the six levels of the taxonomy by number and percent of technology-based learning objectives uncovered. The weakest representation of objectives was technology (Level 6.0) with only 2.1% of the observed objectives. The strongest representation occurred at the literacy Level 1.0. Over 40% of the objectives were classified at this level.

This chapter expands upon this preliminary data-gathering research to determine relationships between the levels of the Taxonomy for the Technology Domain most commonly addressed in technology-based lesson plans and the grade levels and academic content areas they represented. The investigation sought to establish the viability of the taxonomy as a classification scheme and the legitimacy of technology as its own domain for learning.