

No Significant Difference Phenomenon

(Book review)

Reviewer: James R. Layton

Professor Emeritus
Southwest Missouri State University, Springfield, MO, USA
Email: jrlayton@hitter.net

Textbook details:

No Significant Difference Phenomenon (NSDP)
Thomas L. Russell
1999, North Carolina State University, Raleigh, NC, USA
(ISBN 0-9668936-0-3)

The No Significant Difference Phenomenon (NSDP) is designed and arranged differently from other monographs or books. NSDP contains a compilation of briefly described research findings related to the effective use of technology, chiefly distance learning, compared to alternative methods or techniques of teaching. The annotated studies are arranged chronologically by year beginning in 1928 and ending in 1998. There are 355 research reports, summaries, and papers cited in which *no significance difference* was reported between the variables compared.

NSPD contains 119 pages consisting of a foreword, introduction, an original article by Thomas, a chronological listing of entries, a new entries section, two indexes (one arranged by principal researchers and authors and the other by technology type and variation), a bibliography, and an autobiographical sketch of the work's compiler, Thomas L. Russell.

The compiler reported in the "Introduction" that few studies, if any, were located in which the employment of technology for purposes of providing instruction or teaching was found to be statistically significantly superior in terms of learning to other modes of instruction. Additionally, other forms or modes of instruction were not found to be statistically significantly superior to the employment of technology, especially distance learning, in terms of learners' success. If studies were found, they were excluded from the NSDP work as a result of their being few in number.

"I did not use any scientific sampling method but instead listed every study found that showed no significant difference. . . . The point remains that such studies are practically none existent and the very few that do exist are offset by a like number which show negative results for the technology-based instruction. The good news is that these no significant difference (NSD) studies provide substantial evidence that technology does not denigrate instruction" (p. xiii).

In the "Foreword" of *The No Significant Difference*. . . , Richard E. Clark of the University of Southern California, Los Angeles, indicated that Russell's work ". . . is one of the few rational sources of information about an otherwise irrational and commercialized issue" (p. xiii). Clark continued his praise by indicating that the research comparing the learning benefits of different media have been largely ignored and disputed by educators and media specialists. He asked why. . . .

Carol A. Twigg supported Russell's contention that educators must focus attention on effective learning and not technology, and further that high-cost productions that are designed to compete with professional television corporations are not necessary in light of researchers' reports that low-cost video productions can be just as efficacious (pp. xvii-xviii).

To support his beliefs, Russell included his complete article near the beginning of NSDP that appeared in *Research in Distance Education*, entitled "Television's Indelible Impact on Distance Education: What We Should Have Learned from Comparative Research," (October, 1992).

In the article Russell called for designing and operating low-tech systems and posited several questions that researchers should include when designing studies related to technology and distance learning. In conclusion, Russell wrote in the article, "If one day the lessons of the existing voluminous research were to be accepted, the promise to improve education with the instructional technology would cease, and the proven fact that it can be delivered with the same quality as classroom instruction would be cause for rejoicing. When the day comes that increased sophistication of technologies is shown conclusively to improve learning, then and only then should the promise be restated" (p. xxi).

Clark (cited earlier) completed his comments in one portion by writing, "There are benefits to be gained from different media. The benefits are economic. If media researchers and practitioners would only switch their concerns to the economics of instruction, we would discover all manner of important cost contributions from the media" (p. xi).

Seemingly, Clark and Russell believed that education must employ less expensive technology when the outcome of using media devices are the same or no better than using other teaching techniques. Clark asked, " "Why spend more for instruction if there is a significantly less expensive way to achieve the same result" (p. x)?

Russell is the director of the Office of Instructional Telecommunications at North Carolina State University. His career in education spans more than 40 years.

The No Significant Difference Phenomenon is a readable book and should be of value to all persons involved in educational planning, curriculum design, and the development of educational programs for prospective educators.