

## REFLECTIONS ON RESEARCH

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Research is the study of concomitance. Research is not enlightened value judgment. The task of the educational researcher is to analyze, clarify, and formulate developmental models. The researcher contributes little, if anything, when he injects himself into a situation and then reports his findings as if his presence did not in any way affect any of the existing relationships. The researcher must achieve a level of professional neutrality that is not called for in many other professions.

The effective researcher is blessed with a perspicacity that is not acquired in his formal training alone. He is able to assess the relevant aspects of a situation without the reliance upon a highly structured set of operational procedures. However, it would be incorrect to infer from the above sentence that the researcher is not cognizant of and highly qualified to activate the structured procedures of scientific inquiry and modify them according to the situation.

To assess *the* cause of a resultant is tantamount to admitting ignorance of nature. I feel (please note the verb) that complete knowledge of causality is not within man's intellectual capacity. This is not to say that man cannot journey far in his quest for understanding. Man's understanding is advanced by continuing formulation and modification of developmental models which, hopefully, allow fairly accurate prediction. Since satisfactory models rarely have only one or a few variables, it would seem obvious that the researcher must rely on multivariate analysis in order to elevate his thinking and hence his developmental models to the appropriate level of sophistication. This need for multivariate formulation usually is ignored in the field of educational research. Most educational researchers continue to rely on single or dual variable research, making much use and misuse of simple statistical procedures. The age of laborious hand calculation is rapidly coming to a close. The idiot computer is damned to the task of perpetual gnashing of teeth and grinding out man's myriad of statistics. Less poetically, the computer does allow for rapid multivariate analysis. The moral is obvious.

The question of what constitutes ethical procedures must be dealt with. Shall one report the mean, median, or mode as his "average?" Should the method that produces the highest coefficient of correlation be used? People generally desire to prove their conjectures correct and sometimes rely upon statistical tampering to cast more favorable light upon their original hypotheses, not content to believe that the thorough disproving of a well stated hypothesis adds as much to the body of knowledge as does its confirmation. Hopefully, all researchers will divorce themselves from the notion that the only good hypothesis is the one shown to be correct and thereby sacred.