Abstract-

The authors are concerned with the threats to validity on various experimental designs. They view experimentation as basic in the evolution of knowledge. Threats to internal and external falidity are defined. Three pre-experimental designs are presented and their handling of the various threats to internal validity are examined.

Through the examination of 16 research designs in the light of 12 threats to validity, the authors intend to provide guidance in the selection of designs that may provide "adequate and proper data to which to apply statistical procedure." (p. 1) The first section of their paper introduces the problem and examines three "pre-experimental" designs.

A very high value is placed on experimentation as "...the only means for settling disputed..." (p. 2) The authors give it a very basic position in their perspective on knowledge. "(I)t is a refining process superimposed upon the probably valuable cumulations of wise practice." (p. 4) In other words, experimentation is a means of testing the meaning of experience. Advancement is characterized by "continuous, multiple experimentation". They do note that we should not expect that the results of testing rival theories to be unambiguous. Given the authors' perspectives, it would seem likely that when opposing views are presented by those competent to state them, that they would all be partially right.