

## Summary Information from Laidlaw's (2000) Meta-Analysis

Laidlaw, J. S. (2000). *A meta-analysis of outdoor education programs*. Doctor of Education, University of Northern Colorado, Greeley, CO.

### Abstract

The purpose of this meta-analysis was to examine research in the field of outdoor education to determine if features of studies, outcomes, and programs are significantly related to variation among the estimated effects of outdoor education programs. Specifically, this dissertation improved upon the two prior meta-analyses in the field (Cason & Gillis, 1994; Hattie, Neill, and Richards, 1997) by: (a) randomly selecting an effect size from each study in order to adhere to an assumption of analysis of variance (ANOVA) and regression analysis (independent of effect size), and (b) using regression techniques to control for the influence of potentially confounding variables in a hierarchical manner (i.e., the influence of study design was controlled prior to examining substantive features of programs, such as the length). The primary findings of this dissertation were that the study design and the degree to which outcomes were proximal to the intent of the program explained a significant part of the variance in effect estimates. Specifically, studies using poorly controlled designs had the highest mean effect size estimates (effect size = .6), in contrast to those that used controlled, experimental designs (effect size = .17). In this aspect, the findings of this study support the results of Cason and Gillis. In addition, the findings of this meta-analysis indicated that studies which evaluated outcomes proximally related to program goals had significantly higher effect sizes (effect size = .77) than those studies which evaluated distally related outcomes (effect size = .40). In a notable contrast to both prior meta-analyses in the field, after controlling for the influence of potentially confounding variables, and after controlling for a problematic issue of meta-analysis, that of independence of effect sizes, no other features of outcomes or programs were significantly related to effect sizes. The results of this dissertation imply that the relationship between outcome and program goals are important considerations, and that relationship between other substantive features of programs (such as length) and their subsequent outcomes (Self-concept) cannot be determined from the existing literature given its inherent problems.

Author/ Year	Focus	Client Group	No. of Studies	No. of effects	No. of Participants	ES Baseline (Base-pre)	ES Program (Pre-Post)	ES Follow-Up (Post-FU)
Hattie et al. (1997)	Outdoor Education	All	48	389	3,550	-	.49	-

### Studies Included in Meta-Analysis (N=48)

#### References

Note: Only 43 references are provided in the list of studies included in the meta-analysis, thus an additional 5 studies are not identified.

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