Some Important Variables Related to Conservation Knowledge and Interest

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This study was an attempt to isolate and identify some important variables related to conservation knowledge and interest in high school age youth. The major goal of this study was to establish some basic variable groups that could provide additional meaning and direction for reintroducing an integrated conservation program into the secondary school curriculum through a more appealing instructional approach. Findings indicated that the assumption of a direct relationship between knowledge and interest does not necessarily hold. Findings also contradict popular assumptions regarding rural-urban, male-female, and age differences in levels of conservation knowledge and interest. Open-ended program approaches based on the variables identified could lead to improved methods for increasing conservation knowledge and interest.

INTRODUCTION

It has been difficult to incorporate conservation topics into elementary and secondary school curricula. In years past, a conservation attitude pervaded the instruction in many courses because the concept of "waste not, want not" was a basic theme in good citizenship — an important facet of the student's education (Balzer, 1971). However, during the late 1950s and 1960s science education in our secondary schools tended to become theory oriented, in response to the popular notion that secondary education meant the preparation of students for

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college. This new orientation made it more difficult for teachers to include conservation activities in their normal instructional programs because these new theory-oriented materials tended to change conservation from a contributing influence to an independent topic area (Ehrle, 1971; Kormondy, 1971; Archbald and Gundlach, 1970). As a result, the continuity of conservation as an interdisciplinary concept was rendered less effective (Keach, 1973).

However, since the 1960s a trend has developed in secondary schools to reincorporate conservation principles into appropriate courses (NEA Research Division, 1970; Michaud and Hilterbrand, 1972). This trend has paralleled the increased emphasis on synthesizing the theoretical and practical aspects of course content to demonstrate how people relate to their environment (Stotler, 1971).

It would be useful to identify how a group of individuals who are interested in conservation have obtained their knowledge and interest in conservation (Hendee, 1972; Donaldson, 1972). This information would be helpful in identifying sources of conservation information that are both appealing and reliable so that more efficient and interesting methods can be developed for imparting conservation knowledge and attitudes (Galushin and Doraiswami, 1973; Brennan, 1973).

PROCEDURES

This study was conducted in conjunction with the state 4-H conservation camp held at Virginia Beach, Va., in July 1973. The participants were in grades 9-12. They represented a spectrum of localities within Virginia; 81% were from rural or small-town communities and 19% were from more urban areas. The participant population was 57% female and 43% male.

The evaluation method used to assess knowledge (and its utilization) was initially developed by Giles (1958) and has since been updated by Wesley (1973); it was modified by the authors to widen the scope for this study. Interest was assessed using a subjective rank-order scale. The primary content focuses of this study were forestry, wildlife, soils, water, air, and entomology.

Reliability of the knowledge instrument was checked with a K-R 20 method. The estimate of the reliability was 0.858. The final items used to build the knowledge index were selected with item analysis.

An array of variables that might influence conservation knowledge were studied, including demographic data (sex, grade, and location of residence), school subjects, interest and activities, and media sources. The relationships between demographic variables and knowledge were examined within an analysis of variance framework. The relationships described are those whose cell means were significantly different at the 0.05 probability level using Duncan's multiple range test. The relationships of nondemographic variables to knowledge were analyzed