

Urban Children and Nature: A Summary of Research on Camping and Outdoor Education

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ABSTRACT. This paper reports the preliminary findings of an extensive bibliographic search that identified studies on urban children in camp and outdoor education programs. These studies were systematically abstracted and classified qualitative or quantitative. Twenty-five percent of the abstracted studies were quantitative. The major findings, techniques of study, and policy suggestions of the studies are summarized. In general, the qualitative studies report considerable positive influence for urban children involved in camp and outdoor education experiences. The quantitative studies find only slight changes or changes for only a small proportion of the campers. The changes reported in the quantitative studies are often attributed to the break in routine or to the class backgrounds of the campers rather than to the camp experience. This paper suggests that more refined quantitative research and more modest qualitative research are needed.

CHILDREN, NATURE AND URBAN PLACES are topics rich in published studies. Perhaps such a richness reflects our overwhelming expectations for all three. Children represent a hope for an improved future. Nature has been the green innocence from which we have extracted our material riches and to which we return in search of our self-understanding (Burch 1971). Urban places are where most of us continue to live, in some mixture of pride and despair. Still, it remains an interesting question whether hope and innocence can cure our despair.

This paper will take no steps toward answering such large questions. Even when we take a very much narrower topic such as outdoor education and camp programs for urban children we find a wide divergence of approaches. There are those whose primary interest is in observing the regularities of behavior which occur in such settings. There are

those whose primary interest is in ensuring that urban children enjoy and appreciate their contact with nature. And finally there are those who think that urban life could be made more vital and humane if natural settings were part of all urban design.

In general, these three approaches tend to divide among professional specialties. Persons concerned with behavior tend to be academic researchers such as geographers, psychologists, sociologists, physiologists, and physical education specialists. Persons concerned with the child's enjoyment tend to be educators, camp managers, social workers, and so forth. Persons concerned with nature in the city tend to be architects, foresters, parks and recreation specialists, and so forth. Except for this symposium these three groups seldom meet together, seldom read one another's journals or other writings and seldom consider the existence of the other groups except to assign the

responsibility for solving "people" problems or "design" problems or "management" problems to one of the other groups. Our vision needs to be enlarged.

As a start, I offer the preliminary findings of an extensive bibliographic search which identified studies on urban children in camp and outdoor education programs. From this search my students and I identified over 200 items which could be called "studies" (articles with a reasonably systematic report of observed relationships). Reports and articles which were mostly polemical or basically operational (how to keep the plumbing working) were omitted. The others were systematically abstracted and classified by whether the reported observations were "qualitative" or "quantitative."

The following pages report some of our findings. I will first indicate something of the differences between the qualitative and quantitative studies. Then I will summarize the material that has been abstracted.¹

QUALITATIVE STUDIES

This term refers to a varied body of literature dealing with youth and the camping experience. Here we find discussions of how to design a camp or camp program, descriptions of the operation or history of a particular camp program, accounts or testimonials concerning the benefits of camp experience, and general philosophical discussions on the needs for and values of the camp experience. Many of the articles combined several of these approaches.

This type of literature most commonly appeared in journals such as the *American School Board Journal*, *The Child*, *Recreation*, *International Journal of Religious Education*, *Childhood Education* and so forth. Another common source is publications put out by the camps and camp organizations about themselves (e.g., L. B. Sharp, *Education and the Summer Camp* [Life Camps]; J. Lieberman, *Creative Camping* [Pioneer Youth Camps]).

An interesting side issue which emerged in our abstracting was the tendency for camp management to reflect goals and techniques similar to those found in industrial manage-

ment at the time. The early approach (up to the 1930s) in camp management stressed a finely structure program with motivation based on an elaborate and competitive reward system, and with the physical health and well-being of the camper as a primary concern. This management pattern resembles the "scientific management" (i.e., time and motion studies) approach to industrial management which was popular at that time. In the 1930s there was a shift in "progressive" camps to more concern with managing the campers' experiences. This is similar to its contemporary "human relations" approach in industrial management (e.g., Western Electric studies.) The more recent cooperative camps, in which the campers make decisions as a group, seem to echo a concern with decision-making processes similar to the recent "decision theory" (i.e., industrial democracy) approach in industrial management. We do not know whether these trends were "real" or simply an artifact of the kinds of studies we abstracted, yet such trends should intrigue camp and recreation professionals as well as academic researchers.

QUANTITATIVE STUDIES

Quantitative studies focus on a specific research question or problem. These studies employ a definite research design which lends itself to replication, they attempt some form of objective measurement and use some form of statistical analysis. In the ideal case, the problem under consideration is related to some aspect of systematic theory. This is seldom the case; most researchers simply tackle a research question that interests them or their sponsors. There is also a small set of articles that discuss techniques of measurement and data collection.

Generally books and articles of the quantitative type appear in the standard professional journals (e.g., *Journal of Social Issues* or *Journal of Educational Psychology*) or in specialized professional journals such as those on health, physical education, and recreation (e.g., *Research Quarterly*, *Journal of Leisure Research*). Other common sources are theses and privately published (or mimeographed) research reports.

The importance of this type of literature for future research efforts is obvious. An examination of previous research indicates what has

¹Those who wish a more detailed bibliography and a discussion of the technique followed in our abstracting process should contact the author.

already been done, what results were observed, what problems were encountered, and what solutions or future questions are suggested. However, such literature is only a small portion of the available literature on leisure. Of 197 books and articles selected from indexes and bibliographies on the basis of their titles which seemed related to children and camping, no more than 49 (25 percent) were quantitative.

SUMMARY OF FINDINGS

Selected Qualitative Studies of Camping and Outdoor Education for Children and Youth

The qualitative studies are not easily reduced to tables, standardized measures and reported tests of significance. These summaries illustrate the range of observation, insight, and generalization provided by such studies. They are divided by topic.

Outdoor education.—Dryden (1936) reports that camping serves a unique educational purpose by stimulating self-discovery and self-education. Grubb (1943) argues that camp and school life should be correlated and integrated because their aims and purposes are the same. Brimm (1959) suggests that schoolwork and school-sponsored camping education and experiences should complement each other. Johnson (1959) argues that a school divorced from nature gives us mere schooling. Nature can convert schooling to education.

Day camping.—Dryden (1938) demonstrates how day camping serves to introduce people from a crowded metropolitan area to recreation in the open countryside. Kidd (1942) reports that day camp provides citizenship education. Since all experiences are in the child's natural environment, day camp involves a minimum of business detail and can, therefore, readily retain leaders. The carryover effects of out-of-town camping are not known. Wilson (1959) argues that day camps should avoid "taking the city to the country." Mass campouts are to be avoided to keep the experience free of "city congestion" of all kinds.

Juvenile delinquents.—Persey (1941) reports that 75 percent of the boys (generally recent migrants to Los Angeles) do not appear again before the Los Angeles Juvenile Court after attending a Juvenile Forestry Camp. Solomon

(1948) notes that recreation cannot cure delinquency, but it can help. Recreation is a means of contacting potential delinquents, cultivating their confidence, and influencing their behavior and ideals. Thomas (1947) persuasively argues that, as an isolated experience, a summer camp would have little value in the rehabilitation of delinquent children. Its brevity and its lack of continuity with children's previous and subsequent experiences would militate against its effectiveness. It is valuable when it is part of a year-round program. Remedial camps require a smaller ratio of campers to counselors than conventional camps to be effective. Oyasoto (1953) illustrates that the benefits of camping for juvenile delinquents are: 1) experiences in group living; 2) participation in activities and having fun; 3) getting along with peers; 4) assumption of responsibilities.

Disadvantaged youth.—An interesting contrast is provided by statements from two different decades. Clift (1950) argues that Negroes' problems in recreation are not different basically from problems which confront other social and ethnic groups. Limited economic resources have implications for leisure patterns. Negro youth live and grow with a pattern of unrestrained and uninhibited recreational behavior that is not a constructive form of amusement; it does not tend to develop physical and mental competencies. Rivera (1966) illustrates some of the benefits of camping for disadvantaged Negro and Puerto Rican high school graduates: learning to enjoy vigorous outdoor work; learning to enjoy a library; developing "esprit;" working in new areas of learning (nature, ecology); learning new skills and crafts, receiving individual attention from the staff; learning discipline; developing pride in Black and Puerto Rican heritage.

Lower economic background.—Hanson and Gee (1968) suggest that youth from lower economic backgrounds may not participate in programmed activities because of: 1) expulsion from an activity for antisocial behavior, 2) discomfort in an overly restrictive atmosphere, 3) programs that are atypical of their experience and background, 4) indifference to schedules, 5) leadership turnover, 6) lack of transportation, funds, clothing, and 7) distrust towards middle-class altruism.

Inner-city children.—Frank (1968) suggests that to facilitate communication, staff members should be of same race as children; the staff

should be briefed and be aware of inner-city conditions before campers arrive. Caulkins (1935) argues that free expression comes about because of a lack of regimented schedule.

Race relations.—Cooper (1945) seems convinced that an interracial youth camp program succeeds in overcoming racial prejudice, as is Duveneck (1955), who sees camp as a potential laboratory for the prevention of prejudice.

Co-ed camping.—Greene and Greene (1957) think that by having both men and women counselors, some of whom are themselves parents, it is possible to establish more normal adult-child relationships than are possible in other types of camps.

Camp and child development.—Mower (1934) notes that hobby time allows children to satisfy their craving for self-expression and provides the opportunity for recognition. Curtis (1938) makes the surprising suggestion that for social interaction, farm children need camp more than city children do. Seltzer (1938) argues that camp aids socialization of the camper through his meeting life situations with a group in a primitive environment. Instead of being warned "Don't" the child should be urged "Do!" And Nash (1950) is convinced that the school-community camp can and does offer opportunities to develop a social sense of belonging.

Mason (1930), on the other hand, finds both good and bad effects of camp. He reports on the bad effects of camp reported by campers—males: smoking and swearing; females: gossiping, swearing, cliques. Good effects—males: being a "good sport," obeying orders, obeying majority rule, self-control, regular hours, self-reliance; females: mixing well and making friends, good sportsmanship, consideration of others, good eating habits, independence. Social adjustment is the greatest contribution of camping.

Streckler (1944) feels that an analysis of case studies shows that campers' gains in personal stability in summer camp may be reversed in postcamp life by the very forces that fostered this instability in the first place (e.g., bad home life, etc.). Spencer (1934) also feels that harmonious camp life can become difficult with campers of widely varying backgrounds and abilities. Statten (1929) cautions that life in the woods is "unnatural" to a city boy. In examining behavior observation records, he found that the best results were invariably achieved with

younger boys. This supports evidence that the best time for establishing desirable social attitudes and habits is early childhood.

Sharp (1930) reports that camp tends to eliminate social and economic barriers because 1) social contacts are confined to the camp group, 2) social and economic positions held in organized society play a less important part in camp, 3) there is no need for spending money, and 4) the simplicity of camp costume gives matters of dress less social importance. And Haskell (1959) believes that nature study develops the ability to see. Chase (1968) notes that an advantage of camp is that the structure may be geared toward the individual more readily and effectively than the classroom situation which, of necessity, is structured for the majority.

Harms (1953) reports that a well-guided introduction to nature itself is the best possible start for a child's happy adjustment to the rest of the world. Knowledge of the world we (children) live in means a basic feeling of familiarity and security about our existence. This is true for every young child; he needs to feel secure.

Myering (1938) cautions that the camping program may be so highly organized that little opportunity is provided for individual remedial treatment, even though difficult problems of adjustment to the demands of the new environment are discovered. More problems were recorded early in the camp stay than later on, and more on Sundays than on weekdays. Zander (1938) reports that long-term campers (6 to 8 weeks) received more favorable appraisal for behavior than short-term campers (1 to 5 weeks). The shorter the stay, the more unfavorable comments were recorded by counselors.

Attitude change.—Knight (1953) seems to run counter to the rest of the field when he argues that while change is possible in the camping situation, it is not necessarily inherent in it. There is no reliable evidence that a summer, or a dozen summers, spent in camp will necessarily make any significant change in the individual.

Conservation.—Shomon (1964) reports that the fundamentals of conservation are learned best through personal experience in the outdoors. Citizens whose contact with the land has been severed cannot be expected to act intelligently on conservation matters.

Camp as a society.—Frey (1959) expresses a fairly common notion in the field that camp is a miniature society with roles, expectations, values, a structural hierarchy, and so forth. Donaldson and Donaldson (1955) qualify it to note that a camp is a children's community. Children have trouble identifying with a role of submission to the mandates of adult society. Mason (1930) prefers the higher abstractions that a camp is a society and is subject to the same social processes and is regulated by the same social controls as any other society.

Benefits of camp.—Julian Smith (1950) provides a useful summary of the social value of camping; it contributes to: 1) social living; 2) healthful living; 3) purposeful work experiences; 4) recreational living; and 5) outdoor educational activities.

Quantitative Studies of Camping and Outdoor Education for Children and Youth

The studies are summarized in table 1. The information available on how these studies were done is often incomplete; some authors fail to

state their hypotheses explicitly, describe their data analysis, or describe their research design adequately. Studies that use published instruments (tests, scales, etc.) seldom provide information on validity and reliability.

As the reader will note from table 1, most of the research questions are of a practical rather than a theoretical nature and though the findings tend to support *a priori* hopes that the camp program has certain physical, mental, and social benefits, the actual statistical tests suggest very modest relationships. Questionnaires (21 studies) and systematic observation (10 studies) were far and away the most frequently used means of data collection. A wide range of scaling techniques were used to measure the influence of the camp experience. The findings suggest some reasonably consistent gains in social skills but few specific gains in nature appreciation or understanding. Finally, the reader should be aware that although these studies suggest that certain desired behavioral changes occur in natural settings, there is no comparative context or other means for determining whether the natural setting is the necessary condition for the observed change.

Table 1.—Research techniques and findings of quantitative studies on urban children and camping experiences

Author	Paraphrase of author's research questions	Research design and methods	Findings	Instruments used	Comments and author's suggestions for further research
Barker 1969	Does a session at camp improve a child's physical fitness?	Four tests - before and after 5 weeks at camp. Boys aged 10-13 N = 9.	Gains on all 4 tests - only 1 was stat. sig. at .05.		
YMCA n.d.	Will a camp experience lead to greater achievement gains in school the following year?	Comparison of records of "culturally-deprived" inner-city children aged 10, 10 days at camp.	Not available at time of report.		
Barker 1958	Will a camp experience produce an improvement in skills? (Not specified in abstract.)	Interviews, questionnaires, rating scales on "underprivileged youth" aged 11, male, female.	Of all items tested, skills showed least improvement.		Greater followup and preparation for camping experience needed in interest of continuity.
Remer 1970	Will a remedial reading program in a camp setting result in reading level gains?	Tests administered before and after 4-1/2 weeks' camp. Boys and girls, grades 5-7. Also teachers' judgments.	2/3 of the youngsters showed gains of from 1-5 years in reading grade level.	Gates Reading Tests, S.R.A. Reading Laboratory Test.	
Barber 1958	Will a camp experience produce an improvement in leadership?	See Barber above.	Among those items tested, leadership showed least improvement.		

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Table 1.—continued

Author	Paraphrase of author's research questions	Research design and methods	Findings	Instruments used	Comments and author's suggestions for further research
YMCA n.d.	Will secondary campers develop leadership skills?	Ratings by counselors. Inner-city secondary school students.	Counselors rated them as doing a good job.		Leadership training is valuable.
Bozarth 1953	Is there a greater increase in interest in school after a camp experience?	Case studies, sociograms, tests, questionnaires. Grade 6 pupils, 5 days at camp.	School camping increases interest in schoolwork.	California Test of Personality (Elementary)	Author suggests use of control group rather than repeated measures.
Hollenbeck 1963	Will a camp experience produce an increased interest in science subjects?	Questionnaires, tests, evaluation of work, opinion survey. 5-6th-grade graders. N = 22.	Noticeable increase in science interests by 5th-graders.	Science-interest section of "What I Like To Do," (Chicago).	
Jensen 1965	Is it possible to develop an instrument capable of measuring the change in camper attitudes towards a specific?	Attitude inventory at camps of varying lengths. Exp. and control. Girls, 9-15 years. 2 groups.	Test proved to be more reliable than valid.		
YMCA n.d.	Will a camping experience provide a more favorable attitude toward teachers?	Ten days at camp for "culturally deprived" inner-city children. Questionnaire, "My Teacher," given once. Age 10.	Not available at time of report. A preliminary test indicates that 1/3 of the children view their teachers unfavorably		
Remer 1970	See Remer above.	Participants: 5-7th-grade boys and girls.	Children's Aid Society workers report improved attitudes toward school and teachers.		
Stack 1960		44 boys, 44 girls, 5-6th grade, lower middle socioeconomic class.	Girls regard school more positively than boys, who changed positively a small degree after camp.		
Yarrow et. al. 1958	How is culturally appropriate behavior learned?	Comparison of behavior in segregated and integrated camps. All children of same social class. Instruments, interaction records, observations, assessments.	Children after integrated camp experience viewed members of the other race as individuals rather than stereotypes or racial objects.		2 weeks is not sufficient to produce a change of attitude.
Beker 1960	Do school campers experience greater social-emotional growth than non-campers?	Camp group and control group. Grade 6.	Campers showed gains in self-concept.	Instruments included an unpublished self-concept checklist.	
YMCA n.d.	Will an outdoor education program favorably affect a camper's self concept?	Test administered at beginning and end of camp. "Culturally deprived" children aged 10. Also given to secondary pupils.	Gains in self-concept were significant at .05 level of confidence was found for secondary pupil campers. No appreciable change for the elementary pupil campers.	2 unpublished scales, Sears Self-Concept Scale, and Waetzen-Liddle Self-Concept as Learners scale.	No change in secondary campers - may be due to an unanticipated influence.
McCreary-Juhasz and Jensen 1968	Will the self-concept of emotionally disturbed children be affected by a school-camp experience?	Behavior analysis, teachers' postcamp evaluation. Age, sex, not given. N = 22.	6 of 22, self-concept up. 1 of 22, self-concept down.		

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Table 1.—continued

Author	Paraphrase of author's research questions	Research design and methods	Findings	Instruments used	Comments and author's suggestions for further research
Stack 1960		See Stack above.	Failed to show a gain toward ego concept. 6th-grade students placed more value on associates than on selves.		
Yarrow et al. 1958	See Yarrow above.	See Yarrow above.	Negro children's self-esteem increased during camp		
McCreary-Juhasz and Jensen 1968	See above.	See above.	8 of 22 set "more realistic" levels of aspiration.		
Goodman 1952		Analysis of case records, interviews, observations. Most children came from families with emotional tensions. Ages 7-15, male and female. N = 23	1/3 of campers made poor adjustment. Length of stay is important factor (poorly supported). Family background is not a predictor of adjustment.		
Janus 1967	Is there a relationship between personality and camp adjustment?	Precamp personality tests, postcamp adjustment scales developed for the study. Female college sophomores, 1 week stay.	Although separate personality characteristics may be significant, camp adjustment seems to be facilitated by generalized ego strength, flexibility and openness to new experiences.	Barron's Ego Strength Scale (unpub.), Budner Tolerance-Intolerance of Ambiguity Scale (unpub.), Elias Family Opinion Survey, Edwards Pers. Reference Scale.	
Putter 1963	What factors have a significant effect on children's adaptation to a resident camp?	Test, sociometric tests, and counselor's ratings. 3-week encampment for 7-15-year-olds.	No stat. sig. difference between adjustment of 1st and 2nd time campers. Income level of camper's family correlated negatively with adjustment for 1st- and 2nd- timers.	Haggerty-Olsen Behavior Rating Scale.	
Bray 1945	What changes in selected social traits were exhibited by children in camp?	Comparison between first and last week in camp. Boys and girls, 6-13 years, N = 41.	All social traits had a higher mean in the second observation. "Important gains" in "cheerfulness," "companionableness," calmness, courage and consideration (stat. sig.).		
Dimock and Hendry 1929	How to measure development of desirable social attitudes and behavior and character.	6 age groups of boys, counselors' ratings, pencil and paper tests, questionnaires.	Most useful methods for measuring results were the descriptive records of the boys' behavior and the behavior rating scales. Desirable changes in behavior are not an inevitable outcome. Amount of favorable change seems to decrease with increasing age. Character changes depend upon many factors: type of program, group pressures and opinion, kind of guidance. 1 or 2 months stay does not yield significant differences.		Authors would like more objective tools.

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Table 1.—continued

Author	Paraphrase of author's research questions	Research design and methods	Findings	Instruments used	Comments and author's suggestions for further research
Henke and Kühlen 1943	Is children's social adjustment better at end of YMCA summer camp?	Boys in 3 age groups; 8-18 yrs.; different socioeconomic classes; standardized tests at beginning and end.	Stat. reliable diff. in <i>happiness</i> and <i>impulse judgment</i> scores; not on <i>sympathy</i> , <i>truthfulness</i> , <i>control</i> , <i>purpose</i> and <i>alienation</i> . "Underprivileged" boys may have been harmed by feelings of "inferiority."	Washburne Soc. Adj. Inventory. Rogers Test of Pers. Adj. Sim's Scale of Socioeconomic Status (no information available), "Otis Intell. Test (A), Moreno's Sociometric Technique (no information available)	Greater variety of measurement and testing techniques. Socioeconomic class should be a constant.
Knight 1955	Are socially desirable traits reinforced by a camp experience?	Experienced (campers) and control group (noncampers). 124 5th-grade pupils from 2 different schools; observations of behavior in test situation.	No difference in % of volunteers for extracurricular task. Campers were more reliable—worked longer and harder at the volunteer task.		Can a brief stay produce a significant change in persons? Can difference in behavior be attributed to factors other than the camp program?
Kranzer 1958	What are the objectively measured social, emotional, intellectual, physical, and democratic living effects of a 5-day school camping experience for 6th-graders?	Tests and sociograms, teacher's logs and counselor's narrative evaluations, questionnaire (presumably control and experience groups).	Faster changes in social and democratic behavior in camp than might occur in classroom; teacher's opinion. Camping improves classroom behavior. No measurable effects related to sex or I.Q.	Woods Behavior Pref. Record. Haggerty-Olsen-Wickman Behavior Rating Schedules. Baxter's Rating Scale of Teachers. Personal Effectiveness (unpub.)	
Stout 1939	Does camp experience have an educational value (by which he seems to mean "improved behavior")?	Gathered opinions, sent questionnaires to parents whose children had been to camp (boys and girls).	Areas of perceived improvement: reliability (least), social relationships (greatest); emotional stability was also heavily checked.		
Beker 1960	Measure of social relationship by concept of "social distance".	6th-graders, subjects and controls; tests given before and after camp and 3 months later.	Camping has a positive influence on a camper's social distance although difference between Ss and control seems too tenuous for anything more than conclusions.	Classroom social Distance Scale (Dunningham) (no information available).	Future studies should focus on program content to identify determinants of change.
Bozarth 1953		59 6th-graders at school-camp (5 days), case studies, questionnaires, tests, sociograms.	Increase of acceptance among children with a fading out of both "stars" and "isolates;" increase of mutual friendship.		Author suggests use of control group rather than repeated measures.
Davis 1960	After a camping experience will children be chosen as friends more often?	32 8th-grade students, boys and girls; "home-made friendship test," before and after.	Both boys and girls received significant (.05) more choices after camp than before.		
Hollenbeck 1963		22 5-6th-graders, 1 week camp. 3-question sociometric questionnaire.	More willingness to work with members of the opposite sex after camp; 1 clique merged with the group somewhat; isolates more integrated into the group.		
Stack 1960		5-6th-graders, lower-middle socioeconomic background. 44 boys, 44 girls.	90% made new sociometric choices (mean 1.61). Boys formed more than girls; 6th-graders more than 5th.		

Table 1.—continued

Author	Paraphrase of author's research questions	Research design and methods	Findings	Instruments used	Comments and author's suggestions for further research
Baer	What differences in behavior in camp might be predictive of recidivism?	Forestry camp; 20 boys (recidivists) each in subject and control groups. Data collected from files and camp records. No stat. analysis.	No significant difference in backgrounds, except study group had more previous arrests than controls. Controls were higher on weekly merit list. Study group had more behavior problems.		Small number of cases; reliability of records questionable.
McCreary-Juhasz and Jensen 1968	What is the value of summer camp for emotionally disturbed children?	22 children, 2 weeks in school camp. Teacher's evaluations and behavior analyses.	Improved behavior noted in all cases but 1 (parents' responses): more realistic aspiration levels, greater self-confidence, better academic achievement.		
Cole 1957	Does a work camp for potential dropouts have more holding power than the regular school program?	Initial tests, follow-up interviews with questionnaires, 2 groups of potential dropouts, one of which attended camp, and a control group of well-adjusted students.	Camp experience Ss became more "friendly and cooperative," improved attitudes toward school; improved vocational and personal skills; better health and eating habits.	Calif. Mental Maturity Test, Stanford Read. Test, Wide-Range Ach. Test, Mooney Problem Checklist, Rotter Inc. Sentence Test, Calif. Interest Inventory.	
Hollenbeck 1963	See above.		Outdoor scenic experiences aroused new interests in many of the children. Science concepts were enriched by the camping experience.		
Kranzer 1958	See above.	Questionnaires and evaluation forms.	School camping stimulates classroom activities, aids good instruction.		
Sharp 1948	Does school camping experience affect learning about specific subjects?	Experience and control groups. Pencil and paper tests in arithmetic, science, health vocabulary, nature and opinion surveys.	Significant difference (.05) in favor of experimental (campers) group.		Results may have been affected by camping-oriented curriculum for experimental group prior to camp.

CONCLUSION

In general the qualitative studies find considerable positive influence for urban children in camp and outdoor education experiences. These studies emphasize the need to have camp and school life integrated. The authors believe that children and youths involved in camp and outdoor education programs gain in self-esteem, in attitudes toward school, in ability to interact with others, and in tolerance for other races and ethnic groups. These studies regularly report that the shift from urban to natural settings has a positive benefit for a child's awareness and attitude. However, some of these studies caution that a simple "one-shot" program, or simply

returning youths and children to "poor" environments, will not gain the desired social improvements.

The findings from the quantitative studies provide a less optimistic perspective. Though changes are reported, often they are not statistically significant or the change is slight and then only for a select few of the campers. Many of the quantitative studies seem to imply that change in behavior can as likely be attributed to a general alteration in the child's routine as to the natural setting of the camp. Other studies imply that the social class or social status of a child's family has a more crucial influence upon "benefit" from the program than does the specific camp experience.

Children from higher social classes and status groups seem "set" to benefit from the camp program, while others are less likely to benefit. Still most of these studies do indicate that for some persons there are some gains or benefits on certain measured dimensions.

It would seem that the quantitative studies are not finely enough tuned to identify the factors that permit these individual gains. On the other hand the qualitative studies may be overly hasty in extracting a general principle from too few cases. The question is not which set of studies is most correct; rather the need is for a shared humility regarding our very limited understanding. The nearly 50 years of studies summarized here represent a significant empirical and humane base of information. Our task is to use that base to explore more systematically the role that nature, camping, and outdoor education can play in the lives of urban children. And in that exploration there will be little time for managers or designers or scholars to pretend that theirs is the only correct path to understanding.

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