

Conference Strand: Society

Perceptions of Environmental and Recreation Importance
to Elementary School Campers

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ABSTRACT

This session details a research project that examined the effectiveness of the Kentucky Department of Fish and Wildlife Resources (KDFWR) Conservation Camps. A survey was established to measure campers' perceptions of importance to various environmental and outdoor recreation topics. A repeated measures test was performed to evaluate campers' perceptions of importance to various environmental and outdoor recreation topics. Study findings suggest KDFWR camps influence camper's perceptions of environmental and outdoor recreation topics. Findings also suggest that subjects from urban areas demonstrated significantly greater positive change in campers' perceptions of importance to various environmental and outdoor recreation topics.

INTRODUCTION

In the summer of 2002, a study was initiated of campers in the Kentucky Department of Fish and Wildlife Resources (KDFWR) summer camps. This study consisted of a pretest and posttest of campers' perceptions of importance to various environmental and outdoor recreation topics. Prior to this study becoming reality, several steps were taken. KDFWR has a long history with conservation camps. This research project entailed various steps in an attempt to evaluate whether changes occurred as a result of participation in KDFWR camps. The project is reported in this document and follows with chapters covering: Review of Literature, Methodology, and Implications.

REVIEW OF LITERATURE

The review of literature examined programs supporting and influencing environmental education. A number of studies indicated that teaching environmental education can be very beneficial to students and may lead to future awareness (Powell & Wells, 2002; Tung, Huang, & Kawata, 2002; Spencer, Webb & Nelson, 1999-2000; Nelson, L. & Spencer, S. 1993). The very nature of this field tends to produce eclectic approaches in providing for environmental education. What method is best? Classroom activities? Experiential learning through active engagement? Camp and the outdoor influence? Perhaps future research will provide answers to these questions.

METHODS

In the summer of 2002, a study of campers in the Kentucky Department of Fish and Wildlife Resources summer camps was initiated. This study consisted of a pretest

and posttest of camper perceptions of importance to various environmental and outdoor recreation topics.

This study involved the following steps:

1. Survey Development

The survey was developed to evaluate whether campers were leaving KKDFWR camps with significant differences in their perceived importance in environmental and recreational topics. This process then went through four significant steps prior to establishing the final survey tool utilized in the camp study.

Step 1: Panel of Experts

Step 2: Readability

Step 3: Rewording of Items

Step 4: Cronbachs Alpha

2. Survey Administration Protocol

In February 2002, KDFWR personnel including Camp Superintendents and Conservations Education Program Leaders (CEPL's) met with the project director and discussed the data gathering procedure and protocol. The protocol was especially important because data were to be obtained through a number of survey administrators (camp counselors) at three different locations (Camps Curry, Wallace and Webb).

3. Pilot Study Administration

A KDFWR Fishing day camp was held at Camp Earl Wallace in March 2002.

The pilot study was administered to this group of subjects of ages similar to subjects attending summer camps. Kronebach's Alpha was applied and reliable items were established following a pilot study. Subsequent adjustments to the survey instrument were made as noted previously.

4. Surveys Administration to Summer Campers

Surveys were gathered during two months of KDFWR summer camp. Portions of telephone numbers were utilized for subject match and color differentiation of surveys were used to distinguish pretest from posttest. Surveys were mailed at the end of each camp session to Western Kentucky University where the data were analyzed.

5. Statistical Applications

Data were collected at each of the three KDFWR camps and all surveys were mailed to Western Kentucky University. Statistical analysis was completed by the WKU Institutional Research Department utilizing a paired samples T test. T-test findings were illustrated as correlation coefficients with significance determined at the .05 level. A three-way ANOVA of data were used to compare the beginning and ending point of campers' perceptions.

6. Report Compilation

The report was written following collection and data analysis at Western Kentucky University.

IMPLICATIONS

Campers' perceptions of importance to various environmental and outdoor recreation topics were examined at Kentucky Department of Fish and Wildlife Resources (KDFWR) summer camps during the summer of 2002. This study consisted of a pretest and posttest of campers in KDFWR three summer camps. A discussion of the findings and implications of this study was presented in this chapter.

Importance Questions Findings

The T-test procedure was applied to examine significant differences in campers' importance from the pre-camp perceptions to the post-camp perceptions. A significant difference was reported in 16 of 20 items with higher mean scores reported after the camp curriculum experience. This indicates that a significant change occurred among campers' perceptions of importance when all subjects in all three camps were analyzed together. The implication may be made that the programming provided to campers does influence their perceptions of importance.

Pre-Camp Means

Camps were examined separately for pre-camp status. Findings indicated that Camp Curry campers scored higher or equal means in 18 of 20 questions. Camp Wallace campers scored higher or equal means in 12 of 20 pre-camp questions. Camp Webb campers scored higher or equal Means in 4 of 20 questions. Means were rounded to two decimal points. By examining pre-camp means we see that the campers started at different levels

Three Way ANOVA Findings

A three-way ANOVA was applied to the differing scores by camp. The three-way ANOVA data shows us that the campers at the three camps were not similar. They did not start at the same place concerning conservation attitudes. Those campers at Camp Curry scored considerably higher than Camps Wallace and Webb on pre-test findings. This also means Camps Wallace and Webb had greater opportunity for improvement. While this was true most of the time. It was not true all of the time.

To simplify this explanation, it is like asking first graders and fourth graders to read something at the first grade level, once before the material is covered and once after the material is covered. The fourth graders will start out at a higher comprehension rate and can only improve a little because they are so high to begin with. The first graders, on the other hand, can improve dramatically because they will start out lower.

Camp Curry consistently had higher means on pre-camp questions than both camps Wallace and Webb. This means that the starting point for comparison between camps varied significantly when camps were examined separately.

Why the difference between Camps?

The difference among camps can most likely be attributed to the demographic make up of campers. Camp Webb had the greatest number of urban campers. Camp Wallace had higher numbers of urban campers while Camp Curry participants had higher numbers of rural campers. This demographic diversity is recognized by KDFWR personnel and occurs because to the proximity of camp Wallace and Webb to the urban centers in Kentucky.

People coming from rural areas have been exposed to many things associated with outdoor resources and wildlife by the nature of their locale. A natural extension of this would be that people coming from rural areas have a greater awareness of the environment in a practical sense because they live in an environment more closely connected to wildlife and outdoor resources. The fact that campers coming from the Camp Curry area had less difference in post-test scores than those campers coming from Camps Wallace and Webb does not mean they learned less or were influenced less. Rather, the “greater awareness” which Camp Curry campers began with, left less room for improvement from the KDFWR camp experience when measured by the instruments in this study.

Campers from Camps Wallace and Webb did exhibit higher differential scores in most post-camp areas when compared with campers from Camp Curry. As noted, this may have been due to the lack of prior exposure outdoor resources and the environment. By the same token, those campers coming from Camps Wallace and Webb indicated a greater opportunity for “improvement” with the tool utilized in this study.

Camp Curriculum

As noted in the first paragraph of this chapter, 16 of 20 importance questions scored significantly higher following the camp curriculum experience. Most of the importance questions related to curriculum areas of the camp experience increased in importance after the camp experience with one notable exception. Boater Education Certificate (Blue Card) showed no difference and even a slight negative correlation. While the blue card is required for youth to utilize motorized watercraft, the camp experience seemed to have made no impression on campers. When discussing this point

with KDFWR Camp personnel, it was noted that this part of the curriculum was usually administered as an optional alternative for campers, administered during free time.

There were other areas that campers indicated were not important. All of these items (Water Quality, Camping, and Air Quality) were not emphasized as part of the camp curriculum. Therefore campers had no experience in these areas while in camp. However, both Water Quality and Air Quality had some of the highest pre camp means of any items, indicating an awareness of importance of these areas prior to camp.

CONCLUSION

In conclusion, the findings from this study tend to support the fact that KDFWR camps are influencing campers with respect to importance of environmental and outdoor recreation topics. KDFWR camps influenced campers' perceptions of importance to various environmental and outdoor recreation topics. However, the differences among the three KDFWR camps were somewhat inconclusive and tended to confound interpretation. Findings did indicate that subjects from urban areas demonstrated significantly greater positive change in campers' perceptions of importance to various environmental and outdoor recreation topics.

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