AN EVALUATION OF FUNDED PHILLIPS ENVIRONMENTAL PARTNERSHIP GRANTS

Ву

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Bachelor of Science

Phillips University

Enid, Oklahoma

1994

Submitted to the faculty of the Graduate College of the Oklahoma State University in partial fulfillment of the requirements of MASTER OF SCIENCE July, 1997

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ACKNOWLEDGMENTS

I wish to express my sincere appreciation to my major advisor, Dr. Ted Mills, and my committee members Dr. Lowell Caneday, Dr. Stephen Stadler, and Dr. John Steinbrink. Thank you for your patience and critical eye.

Also, thanks to my family for their undying support and insistence that I do have what it takes. To Alan Foley who lent me be both technical and moral support that helped to get this project completed.

Finally, thanks to Phillips Petroleum Company for funding the PEP program and especially Patty Marshall for your hard work and cooperation.

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CHAPTER I

INTRODUCTION

As environmental issues of the 90s intensify, the statistics behind those issues become overwhelming. For example: "Nearly one out of every three people in the developing world, some 1.2 billion people in all, lack access to a safe supply of drinking water" (Brown, 1994). "Seventy-five percent of Europe's forests are now experiencing damaging levels of sulfur deposition" (Brown, 1993). "Virtually all the greenhouse gases come from fossil fuels such as coal, oil, and natural gas. Use of fossil fuel has grown 10fold in this century and now provides almost 90 percent of the world's commercial energy supply" (Brown, 1993). As a result of these overwhelming issues, to the individual it seems impossible that anything they could do for the environment could make a difference. Does the fifteen dollars a year donated to one of the national environmental organizations really make a difference? While these national environmental organizations are important, perhaps the most important are the smaller community and school based environmental programs. These smaller programs give those involved a feeling of accomplishment. Individuals get involved in developing and implementing environmental projects and in turn get to see the outcome of their work. Funding small environmental and community based environmental programs can change the attitudes of all individuals involved. Furthermore, adults will realize that by getting involved they can help to form the attitudes of the children involved, which perhaps could be the most benficial of all. What is learned at a young age and nurtured to adulthood has a better chance of making a lasting impact

on someone's life. Adults learn that they really can make a difference, if not so much in world environmental issues, in their own communities and schools were they can see the results of their work. With this change in self capabilities the environmental movement is further supported by those who not only try to make a difference, but believe they can and also teach children that making a difference is the right thing to do (p.6; p. 6.; p.26).

Phillips Environmental Partnership

The Phillips Petroleum Company has been providing grants of up to \$5,000 to "grassroots" community and school organizations through Phillips Environmental Partnership (PEP) since 1993. A total of \$715,057.48 has been allocated for grassroots environmental education projects. Over the past three years of PEP grant program implementation there were 205 winners chosen from 2,066 applicants.

The Phillips Environmental Partnership was founded in 1991 after Phillips

Petroleum Company discovered that states were beginning to require environmental education in the classroom, but were not allocating funds to implement programs. In response to this need Phillips Petroleum Company wanted to implement a program that:

(1) encouraged grassroots environmental activities; (2) encouraged partnerships; and (3) had an education component. Therefore, a challenge was put forth nationally to schools, youth groups, and nonprofit community groups to present their environmental ideas to the newly founded PEP program. The broad PEP program guidelines were set by the Phillips Petroleum Company. To help organize the program, the Oklahoma State University College of Education, Center for Environmental Education (CEE) was brought in on the effort. The CEE was asked to establish a request for proposal (RFP) (RFP found in appendix A) and to determine the merit of the proposals. A cooperative effort from both

organizations developed an RFP and the program was announced to the public in September, 1992. With a January 15, 1993 deadline for RFP's the PEP program was underway.

The Center for Environmental Education's main role in the PEP program was to choose the winners from all of the proposals submitted. Because of the magnitude of the task the Center for Environmental Education decided to put together a proposal review committee. The first year a total of 28 professionals with a history of involvement in environmental education and community projects were brought together for a day of reading and proposal review. The proposals were judged on a one to ten scale using seven criteria (The PEP Proposal Evaluation Form can be found in Appendix B).

Purpose of the Study

The purpose of this study was to: (1) determine positive and negative correlations between factors used to measure PEP project success (factors being percent of project goals completed, additional funding received, the number of people the project has benefited, longevity, and total award amount); (2) analyze comments made by grant writers; (3) to determine the level of project success as perceived by proposal authors; and (4) to compare the most successful project type versus the least successful project type.

Measuring Success

Project success was measured by looking at four factors: (1) percent of project goals completed; (2) additional funding received; (3) the number of people the project has

benefited; and (4) longevity of the project. Data concerning the four success factors was included on a questionnaire and sent to PEP winners. The questionnaire utilizes the Likert scale to quantify data. Likert (Ray, 1993) published a technique for measuring attitudes Each item on the questionnaire is given a weight and the numbers are then added together to form an index. The answers to the questions about the four factors above are on a scale of 1-5. Therefore, the PEP winner completing the survey was asked to circle the number that corresponds to their answer to the four questions. Each completed questionnaire was totaled by adding the circled numbers and a total score falling between 4-20 will be generated. This score was used to determine the PEP winners perceived level of project success.

In addition to determining the level of perceived success of a PEP project the four criteria for perceived level of PEP project success are: (1) perceived percent of project goals completed; (2) additional funding received; (3) the number of people the project has benefited; and (4) longevity of the project will also be compared to the total amount awarded to the projects and to each other. Understanding these relationships will help the PEP proposal review committee in determining which criteria are important to the success of a project. For example, if it is determined that a relationship exists between total award amount and additional funding generated, the PEP program could alter the range of a grant from \$500 to \$5,000 to \$2,000 to \$5,000 and, therefore, encourage a greater amount of outside funding.

The final item on the questionnaire is an open-ended question asking for positive and negative outcomes of the PEP award. The other questions on the questionnaire do not reveal the attitude of the winner towards the status of their project. The questions

using the Likert scale will be helpful in determining project successfulness, and the last question will help to solidify this information. The open-ended questions will give a better idea of the attitude the winner was trying to convey when filling out the questionnaire.

An analysis to the answers of the questions is found in Chapter IV.

Table 1.1 Research Objectives

Research	To determine if a relationship exists between the winners' perceived
Objective 1	percent of goals completed and the total award amount.
Research	To determine if a relationship exists between the winners' perceived
Objective 2	percent of goals completed and the numbers of persons benefited.
Research	To determine if a relationship exists between the winners' perceived
Objective 3	percent of goals completed and the additional funding generated.
Research	To determine if a relationship exists between the winners' perceived
Objective 4	percent of goals completed and the project longevity.
Research	To determine if a relationship exists between the total award amount and
Objective 5	the numbers benefited.
Research	To determine if a relationship exists between the total award amount and
Objective 6	the additional funding generated.
Research	To determine if a relationship exists between the total award amount and
Objective 7	the project longevity.
Research	To determine if a relationship exists between the numbers benefited and the
Objective 8	additional funding generated.
Research	To determine if a relationship exists between the numbers benefited and the
Objective 9	project longevity.
Research	To determine if a relationship exists between additional funding generated
Objective 10	and the project longevity.
Research	To determine an overall ranking of the projects using the four research
Objective 11	criteria for success and a scale of 4-20.
Research	To analyze positive and negative answers given by grant winners about
Objective 12	their PEP projects.
Research	To compare most successful project type to least successful project type.
Objective 13	

Assumptions

When conducting a social scientific study it is necessary to make assumptions while collecting data. The following assumptions were made: (1) individuals surveyed in this study answered the questions truthfully; (2) variability in the length of time projects had to develop is not significant (i.e. projects initiated in 1993 had more time to develop than those in 1995); and (3) that the numerical value given to each of the four criteria of perceived project success are the same.

Limitations

An ideal evaluation would interview each PEP winner in person gleaning their perceptions of what a successful PEP project is and how that relates to their own project, as well as interviews from individuals benefiting from PEP projects. But, because of the geographic locations of the PEP winners and funding limitations this type of evaluation was not feasible in the context of this thesis.

Organization of the Study

The study is being conducted to determine the PEP winners' perceived level of success for their projects. As noted above it will also determine what factors lead to a successful grant project and how these factors relate to one another. Chapter II contains a review of literature which deals with corporate social responsibility, a history of grassroots

environmental education programs, literature that will help in the understanding of the grant process and grant evaluation, and a history of the PEP program. Chapter II is followed by a description of the methods of the study in Chapter III. Chapter IV contains data and analysis and Chapter V contains conclusions and recommendations. The questionnaire and PEP questionnaire cover letter are found in the Appendix C and D respectively.

CHAPTER II

REVIEW OF SELECTED LITERATURE

INTRODUCTION

This chapter is a literature review that deals with a variety of subjects that relate to the PEP program. Topics discussed are: (1) corporate social responsibility; (2) a history of the environmental education movement; (3) literature that will help in the understanding of the grant process and grant evaluation; and (4) a history of the PEP program.

Corporate Responsibility

The unsavory reputation of corporations in the environmental world is one that has taken and will take numerous companies many years to overcome. From Exxon and their oil spill catastrophe to Union Carbide and the Cheronobyl incident, it is no wonder that environmentalist are skeptical of big business. In what some term the decade of environmentalism, the 1990s have become for many corporations a time to take an active role in environmental and social issues. Hoffman (1993) when discussing trends in chemical and petroleum industries states that, "Many journals and politicians tout the nineties as 'the

environmental decade,' and there is much talk about the 'greening' of all sectors of society, including corporations" (p. 47).

Literature describing Corporate America and the environment were grouped into the following categories: (1) the different levels of corporate responsibility found in companies; (2) ecological economics (a new way to figure profits); (3) partnerships between corporations and environmental groups; and (4) a review of different corporations and their involvement in social and environmental issues.

Levels of Corporate Responsibility

The topic of corporate responsibility has been prevalent since the 1970s. Stethi (1979) divides his model of corporate responsibility into three different levels:

- Social obligation minimum legal mandate, (is considered an insufficient level of reaction.)
- (2) "fit" responds to perceived social values and expectations
- (3) recognizes an organization's ability to anticipate and influence future social demands and expectations. (p. 63)

The first two levels can be perceived as "have to" responses, social or customer response demands it. The third level of response involves internal corporate forces: the organization is trying to react to problems before they occur.

Another way to look at corporate response is offense and defense. Defensive responses are market driven, the problems already exists, therefore, something has to be done about it. Offensive responses are internal changes, thus potential social and environmental problems are detected before they become a problem. Offensive responses to environmental issues as levels of corporate responsibility have proven in the past to be

simply good business. An example of this type of response is when a company responds to changing technology, those who take the defensive and change with changing market trends are slower to adapt and quickly lose out on the profit. Those who follow technological trends are more likely to predict future market trends before they occur. Wood (1991) explains the trend, "In this form corporate social responsibility can be viewed not so much as a quality that firms should possess, but more as a construct for evaluating business outputs, using measurements of business and social relationships." Environmental issues incorporated into business with this attitude of foreseeing what potential problems could exist would in the long run save the company and the government time and money. Fewer government regulations would be necessary, and consequently fewer fines as a result of these regulations (p. 383).

Ecological Economics

In 1991 at the United Nations summit in Rio the question of sustainable development was raised and has been essential thereafter (Klaus & Wiggering, 1997). Sustainable development can be defined as "meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development (WCED), 1987). While this is a working definition, it is not a sufficient guideline for corporations or nations to follow in order to achieve sustainablity. In an attempt to build on the 1987 WCED statement Klaus and Wiggering (1997) reiterate three main management rules derived from the definition:

- Harvest rates of renewable resources should not exceed regeneration of rates
- (2) Waste emissions should not exceed the relevant assimilative capacities of ecosystems.

(3) Non-renewable resources should be exploited in a quasi-sustainable manner by limiting their rate of depletion the rate of creation of renewable substitutes. (p. 26)

These three rules are the first step to a much more complicated idea of ecological economics.

The topic of environmental economics is similar to the ideas mentioned in the previous section on levels of corporate responsibility in that it incorporates environmental issues into a business strategy. Robert Costanza (1992), of the Maryland International Institute for Ecological Economics explains ecological economics by using this example:

...cigarette smoking has been a social trap because by following the shortrun road sign of the pleasure and social status associated with smoking, we
embark on the road to an increase risk of earlier death from smokinginduced cancer. More important, once this road has been taken it is very
difficult to change to another (as most people who have tried to quite
smoking can attest). (p. 6)

Ecological economics is more than just determining that we are making a profit at the cost of our natural environment. Ecological economics endeavors to develop solutions to these problems. In order for the old growth forest to be saved there has to be support from everyone, and this will not be achieved unless an alternate source of income is found for the loggers.

Jobs involved in the ecological sustainable use of the old growth forests for recreation and low scale harvesting would be ideal, and government programs aimed at stimulating the development of these sectors would be much more effective than spending money on legal battles. (Costanza, 1992, p. 8)

Ecological economics is about changing the way we do business in reference to the environment without destroying profits in the process. Environmental economics can be

seen as a great compromise between environmentalist, corporations, the government, and the general public. All four of these entities must work together before sustainable development is achieved.

Environmental Partnerships

Environmental partnerships bring together ideas drawn from the concept of corporate responsibility and ecological economics discussed previously. Environmental partnerships foster the idea of pairing corporations and environmental groups, civic groups, school groups, or even government agencies in order to work towards the idea of sustainable growth. The most common trend so far has been the partnerships between corporations and large environmental groups. For example, a group of 21 executives from New Jersey corporations and environmental groups have been meeting for several years with the idea to "redefine the operating principles of the state's department of Environmental Protection and Energy" (Caudron, 1995). "Such partnerships show great promise toward reducing the burden of environmental regulation industry while also achieving the objectives of public-interest groups (Caudron, 1995)." While there is much interest on the corporate side for partnerships, some environmentalists remain cautious (p. 34; p. 35).

A Greenpeace campaigner in the United Kingdom expresses his opinion on the agenda by stating, "We keep putting out glossy brochures as if we're a commercial company. I feel we are falling into an industry-set trap" (Pollyghazi, 1996). Skeptical environmentalists feel that the organizations are making to much of a compromise with

industry by allowing US corporations to get away with polluting abroad, especially in third world countries. Greenpeace has begun to get involved with what they call their "solutions agenda" which promotes compromise with industry rather than opposing industry. "Trade globlization and the deregulation of markets have given business and industry an increasingly powerful say in political processes while western governments have eased up in their drive to regulate polluters" (Pollyghazi, 1996). While some environmentalists remain skeptical many feel that the environmental movement will not continue to grow without compromise with industry. Regulations on industry do not guarantee sustainable growth. Because of the high cost of enforcement, there is only so much that government can feasibly regulate. Environmental regulations do not mean anything if there is no one to enforce them. If corporations were given the chance to be environmentally responsible on their own, they could do a much better job of keeping up with the changing environmental demands. Furthermore, it is reasonable to say that without industries leading the way little more can be accomplished in the environmental movement. Corporate America has the human resources, funds, and expertise, that are necessary to propell the environmental movement forward. Without industry in a leadership role the environmenal movement is in a constant state of revolution. There is not a stable establishment behind the ever changing environmental movement. What is needed are incentives for corporations to get involved. This is where the environmental groups step in and helps with government environmental regulations and ever changing environmental issues. A partnership between industries and environmental groups should play a key role in helping to obtain sustainable growth (p. 28; p.28).

Examples of Corporate Environmental Responsibility

The motive behind voluntary environmental projects funded by corporations are as diverse as the projects themselves. Phillips Petroleum Company funds environmental education programs as well as wetland projects. The Cadillac division of General Motors Corporation formed a partnership with the Nature Conservancy helping to manage nature sanctuaries. (The Nature Conservancy preserves wildlife habitat by obtaining ownership of land and then manging it as a preserve.) "Every time a GEO (automobile) is sold a tree is planted and maintained" (Serafin, 1995). Some corporations are more vocal about their environmental programs. For example, one time McDonalds's had literature about their environmental programs in every restaurant. The motive behind these environmental projects are uncertain, Serafin states that "Auto marketers view the programs as a way to build credibility with baby boomers and young buyers, who are more likely than older consumers to weigh corporate citizenship in making brand decisions" (p. 33). Some feel that corporations who use environmental programs for marketing purposes are being insincere about their commitment to the environmental movement. Others feel that environmental marketing tactics are another way that corporations and the public can work together for the benefit of the environmental movement. As long as the consumer is well informed and knows what the company is all about before they make their purchase, they can use their buying power to keep corporations environmentally sound (p. 33).

A History of the Environmental Education Movement

The history of environmental education is included in this review because it is necessary to understand how the movement has progressed before we can understand what we need to do for the movement now and where it needs to go in the future.

Corporate support and responsibility is necessary to further the environmental education movement because as will be shown in the history of the movement, what is lacking is stable support and funding. As mentioned in the section on corporate responsibility, who better to lead the way than the entities with the funding, human resources, and expertise.

The history of environmental education will be discussed in two different ways in this study. The first is the history of environmental education as it developed in the nation's schools and in printed media. The second way is the political process behind environmental education and how it has been mandated in the states, the nation, and internationally. This is appropriate because it is the state mandates that influenced the formation of the PEP program.

Influences of Environmental Education in the School System

Three different movements have influenced environmental education: (1) nature study; (2) conservation education; and (3) outdoor education. All three of these movements were directed toward curriculum for school children and were a direct result of issues affecting the United States at the time of their implementation.

The nature study movement in the public schools began in the late 1800s with the book, Nature Study in the Common Schools, by Wilbur Jackman. The purpose of the nature study movement was to increase the student's appreciation for the natural world and to emphasize the use of discovery learning (McGlauflin, 1991). In the United States during the 1800s and early 1900s people began to be concerned about intense logging and deforestation while authors like Henry David Thoreau and Ralph Waldo Emerson were responding with literature that sought to express the beauty and importance of nature. Emerson (1836) writes about nature with the following:

It seems to me as if the day was not wholly profane in which we have given heed to some natural object. The fall of snowflake in a still air, preserving to each crystal its perfect form; the blowing of sheet of water, and over plains; the waving rye-field; the mimic waving of acres of houstonia, whose innumerable florets whiten and ripple before the eye; the reflections of trees and flowers in glassy lakes; the musical, streaming, odorous south wind, which converts all trees to wind-harps; the crackling and spurting of hemlock in the flames, or of pine logs, which yield glory to the walls and face in the sitting-room, --these are the music and pictures of the most ancient religion. (Ross, 1995, p. 421)

Stillman (1972) states about Thoreau and Emerson that they, "generally sought in nature an alternative to the harsh rationality's of the industrial environment... around them" (p. 197). This time period is when the industrial revolution was just beginning in full swing. With the pressures of the industrial revolution the reaction of the government was to form new agencies that would later become the department of agriculture and the forestry service. The educators response to the industrial revolution was nature study. To teach a deeper appreciation of the natural world was the educators way of combating the pressures of a growing industrial nation.

Conservation education was a direct response to the Dust Bowl days of the 1930s. With the plowing of land in the mid-section of the country and the great loss of top soil, people began to realize that their agricultural and industrial practices were having a profound impact on the environment. The conservation education movement began in the 1930s and still exists today. President Franklin D. Roosevelt included in his Great Plains Committee support of conservation education with three specific recommendations:

 To insure optimum utilization of educational institutions in a conservation program, curricula, public-work material, and text books should be revised;

- (2) Teacher training institutions in the Plains States should develop a teacher preparation program which provides a broad base in fundamental sciences related to conservation;
- (3) In developing new educational materials and processes, governmental and non-governmental agencies should seek the assistance of professional educators. Also, research findings and new developments in education should be made available to teachers as soon as possible. (Bruker, 1973, pg. 135)

In 1937 the first nation-wide conference on education was held with the intention of emphasizing conservation curriculum in high schools. As a response to the support of conservation education by educators and the president, congress passed laws mandating that teachers implement conservation education (McGlauflin, 1991), but due to the lack of funds many programs were either never started or started and then later abandoned.

The outdoor education movement began in the 1950s and was introduced as an approach to teaching. Educators were encouraged to teach many different subjects outdoors allowing the students to get in tune with the natural world (McGlauflin, 1991). This movement was in response to the urban youth and their lack of contact with the natural world. Outdoor education was not mandated during this time. Instead emphasis was placed on teaching the public about the environment. A good example is the work of Rachel Carson, scientist and writer, who used her writing to explain complex biological processes and how man's influence affected these processes. The following is a passage from *The Passing Year*, a selection from Carson's book <u>The Sea Around Us</u> (1951) which won the national book award (Ross, 1995).

Nothing is wasted in the sea; every particle of material is used over and over again, first by one creature, then by another. And when in spring the waters are deeply stirred, the warm bottom water brings to the surface a rich supply of minerals, ready for use by new forms of life. (p. 149)

Using this extraordinary style of writing, Carson wrote her most influential book <u>Silent Spring</u> discussing the danger of the use of pesticides and fertilizers to animals, birds. and humans. So influential was this book that it "created a public outcry and prompted President John F. Kennedy to initiate a federal investigation into the problem" (Ross, 1995). The investigation brought about stricter regulations and further research on pesticide and fertilizer use. While works like these affected public policy environmental education in the classroom was still not a reality (p. 144).

The term "environmental education" was introduced in the late 1960s. Environmental education was developed to teach not only ecology, but also the social and behavioral aspects of environmental problems in order to create more informed citizens. This is when there was a realization in the movement that not only did nature need to be appreciated, but human behavior needed to be modified before environmental education could have an impact on nature. This was an important step in the environmental education movement. Before this time, environmental education had more of a single sided approach. First, it was the focus on appreciating nature with nature study, and then with conservation and then outdoor education. The movement in the 1960s brought these ideas together. Environmental educators began to teach that not only was it important to conserve natural resources it is also important to look at what is being preserved and appreciate it for its natural value. The 1960s did not see a state mandate at the local or national level to require environmental education.

National Environmental Education Policies

The first National Environmental Education Act was signed in 1970 by President Nixon. Steidle (1971) explains that the purpose of the act was to support research demonstration and conduct political projects designed to educate the public about the

problems of the environment by provideing grants to and contracts with state departments of education, local school districts, organizations, and institutions. The act established an office for environmental education within the U.S. Department of Education. But, funding for this act was so poor it was not reinstated in 1981.

In 1990 the new Environmental Education Act was signed by President Bush. The act focused on two major efforts, to educate the general public as well as educating environmental engineers, managers, and professionals (McCrea, 1992). The 1990 Environmental Education Act has support from several federal agencies including the Smithsonian Institution, the National Aeronautics and Space Administration, the Tennessee Valley Authority, the Peace Corps, as well as the State Departments of Agriculture, Commerce, Education, Health and Human Services, Energy, and the Interior. This act is not a mandate requiring states to teach environmental education, but many are using it to support state level policy for environmental education.

State Level Environmental Education Policies

The Phillips Environmental Partnerships was founded in 1991 after Phillips

Petroleum Company discovered that states were beginning to require environmental
education in the classroom, but were not allocating funding to implement programs. In
1994, Robert Holtz conducted a survey of state environmental education coordinators.

The purpose of the study "was to collect enough data to reveal a generalized picture of
Environmental Education requirements, guidelines, resource material, staff, and teacher
education requirements in the United States (Holtz, 1996)." Table 2.1 is an outline of the
answers from the 43 responding states (p. 9).

Table 2.1 States Requiring Environmental Education

Requirement for EE in grades K-12	19
Requirement for EE in grades 7-12	18
Requirement for EE class for Teacher Certification (grades 7-12)	4
Requirement for EE class for Teacher Certification (grades K-6)	2

Eleven of the surveyed states are trying to establish an Environmental Education inservice. Even smaller than the number of states mandating Environmental Education and Environmental Education in-service, is the amount of funding for those who do mandate such programs. Using the information from Table 2.1 as a measure, in 1994 environmental education is still not a high priority in the American classroom.

By seeking to form partnerships with schools and civic groups Phillips Petroleum Company is trying to promote environmental education with what is lacking the most, funding. As indicated in the section on corporate responsibility, environmental problems in this country will not be solved on their own and they have a lot better chance of being solved when everyone gets involved. Corporate partnerships with schools and teachers are imperative to the environmental education of our future leaders.

The Grant Process and Grant Evaluation

A literature review of the topic of grant evaluation revealed that little has been written on the subject. The most often mentioned topics in the sparse literature concerning grant evaluation are: (1) reasons to evaluate; (2) evaluation methods; (3) the approaches for grant evaluation; and (4) what to do with grant evaluation data. These topics as well as a history of the PEP program provide the organization for this section.

Reasons For Evaluation

It is a common belief in the grants and foundation community that project evaluation is an integral part of the grant process. The evaluation of the success of a grant project, how long it has lasted, or its impact on the public provides a variety of benefits to the grantee as well as the grantor. The wide variety of benefits are the driving force behind evaluation programs providing them with a reason to exist as well as goals for evaluation.

Grantmakers come in a number of forms. There are family trusts, corporations, and groups of private individuals who form foundations which give out grants. Also, there are the government agencies, corporations, family trusts, and private individuals who fund grants without forming foundations. No matter the form the grantmaker comes in, the importance of evaluation of the grant project is relevant. A review of the article by Barbara Keherer (1993), "Seven Reasons to Evaluate," explains how evaluations benefit both grantmakers and grantees. A common reason for grant evaluation is that it will aid in the selection process of future grant winners. "Information about factors that contribute to successful grants and programs helps a foundation to design more effective grants and programs in the future." Thus, evaluation in this context is being used not necessarily to measure the success of the grant recipient, but to make the foundation a better grantmaker. Another reason to evaluate is to be "accountable as a public trust" (Kehrer, 1993). Grantmakers can say that they give money for various programs, but can they say that the money they gave was used to the greatest benefit of the cause? Evaluation can help the grantmaker show the public that what they are doing is useful. Thus, grant programs gain more public support and ideally more public dollars (p. 31; p. 34).

For more long term grant programs grant evaluation can be used as a management tool. It encourages the grantees to improve their programs. A grant program evaluated

half way through implementation would give the grantee a chance to improve his program before all of the money is spent.

Evaluation can be used before a program is implemented. Grantmakers can do a pilot study to test what factors will be most important in choosing who to fund. Or, the goals of the foundation can be evaluated and researched before funding begins.

Foundations or grantmakers who are looking to influence other organizations to join their cause can use evaluation to show what their program has done. Thus, evaluation is being used to further the cause of the grantmaker by involving and motivating others with what they have already achieved.

Lastly, evaluation can be used to further the cause. According to Kehrer (1993), "Evaluation that assess the impact of new interventions or programs can contribute to the attainment of a foundation's mission and the public good by identifying more effective means for addressing social problems and by increasing the state of knowledge about what approaches work best for what groups and why" (p. 32).

While all of these reasons are valid, it would seem foolish to choose only one reason to evaluate a grant program, or to design a program in such a way that only one of the above reasons is met. The most effective grant program would utilize as many of the above reasons as possible. It would not be unreasonable that an evaluation program could improve the practices of the grantmaker, manage the projects of the grantee, and influence others to get involved with the cause simultaneously. Grantmakers must be forth right with their reasons to evaluate in order to create a more effective and efficient evaluation program. A grantmaker who would start an evaluation with no direction or goals as to what they want to obtain from the evaluation would be wasting both time and money.

Knowing the pros and cons of evaluation, such as cost versus overall benefit; it is not hard to decide that evaluation is important.

When resources shrink, the need to use them wisely grows; and now

foundations of all sizes want better feedback on their grants, if only to ask if the intended effects were achieved. This might mean that more foundations will seek simpler evaluations that offer more qualitative, opinion based research than the statistically rigorous and costly ones. (Curtis, 1993, p. 15)

Evaluation must be cost effective, easily conducted, and have quick outcomes and answers. Quick outcomes are necessary for readily available data for the next grant program. Devising a grant evaluation program can be difficult in that performed improperly it can do the grant maker more harm than good. An ineffective survey can only serve to waste the grantmaker's time and money.

Reasons to evaluate cannot be thoroughly discussed without mentioning reasons not to evaluate. With most foundations having limited resources, it seems ineffective for them to use precious grant money on evaluation rather than funding more grant programs, for exactly this reason many grantmakers question the necessity to evaluate. Evaluation being such a difficult and tedious process, it is easy to see why evaluation is overlooked in many cases. Cost and difficulty in organizing seem to be the resounding reasons why grant evaluation is not performed.

Approaches to Evaluation

Because little guidance is found in the literature for small grassroots community based grant evaluation, the evaluation process for PEP was a unique creation. Numerous conferences were held to create an RFP (request for proposal) and evaluation procedure suitable for inexperienced grant authors. For this reason the PEP RFP was kept simple with few guidelines, a maximum of three pages in length, and only a suggestion that some form of feedback would be requested (RFP in Appendix A).

Evaluation techniques for the PEP program were difficult to develop, because few professional proposal authors were involved and little has been documented on the subject of evaluation of grant projects. Evaluation in the grant and foundation community is an area which most feel is necessary, but no one is really sure how to implement. "Do not be overly impressed with what has been done or written so far in the evaluation profession.

There is plenty of room for improvement and new approaches" (Johnson, 1993, p. 18).

Nine approaches to evaluation are discussed in Evaluation for Foundations an evaluation guide developed by the Council on Foundations (1993). A brief discussion of each of these evaluations will develop a better understanding of what is happening in the field of grant evaluation. Objectives Oriented Evaluation is a goals oriented approach to evaluation. What the grantee said would be achieved is compared with what was actually achieved. Just the opposite of Objectives Oriented Evaluation is Goal Free Evaluation. It focuses on what the program did achieve not what it intended to achieve. Often unexpected outcomes are derived which far outweigh the stated goals. Management Oriented Evaluation is geared to the more technical and functional side of the grant program. In other words it is used to manage staffing, budget, and equipment decisions for the grant programs. Expertise Oriented Evaluation can focus on any of the evaluation approaches, but it utilizes outside professionals with expertise in the subject of evaluation. Naturalistic Participant Oriented Evaluation has three major emphasis. First, the emphasis is on the human activity of the program. What did participants glean from the program? Second, it is similar to Goal Free Evaluation in that it follows the flow of the grant program, not rigid standards set by an evaluation plan. Third, the emphasis is listening to more than one view point about the program. What the administrators think of the program may not be the same as the participants. Public Relations Oriented Evaluation is conducted to satisfy the questions of those who support the grant program with funds. Process Evaluation focuses on the elements of program operation while the program is still in process. This would mean focusing on management strategies, client interactions

and cost. Impact or Outcome Evaluation looks at the overall impact of the grant program on a target group. It is used to make the decision of whether a program should be replicated or continued. Cost-Benefit and Cost-Effectiveness analysis are used to see how well the grant money is being used. Does the grant program efficiently benefit a large number of people? Lastly, all of these evaluations could be put into one of two categories Formative and Summative. Formative evaluation is conducted before and during the grant program and summative evaluation is performed when the grant program is complete. All of these evaluation approaches can be useful techniques in evaluation, but it is rare to use just one of these approaches when developing an evaluation program. Larger grant programs that are conducted over several years and spend thousands of dollars might find it helpful to do a formative analysis and study the management of the program while it is in progress. Smaller grant programs would discover it is not that cost effective for them to develop such an extensive program. They may choose to conduct a summative evaluation based on goals and objectives or overall impact of the grant program. As with the topic of reasons to evaluate there is normally one single approach that will provide all the needs of the evaluation program.

Methods of Evaluation

Table 2.2 is a list of the methods provided by Arnett. The ones relevant to this study will be discussed in the Chapter III.

Table 2.2 Methods of Evaluation

Quantitative	producing through experimentation, testing, and statistical methods
Quantitative	numbers that reflect the changes introduced by a program
Qualitative	produces narrative descriptions of activities, processes, and outcomes based on observation
Case Studies	an in-depth study of representative activity of a program or a group of its participants
Sampling	the process of drawing information from a representative portion of a total population to make judgments about the whole
Survey Randomized	a series of questions specifically tailored to evaluate a program
Design	comparing at least two groups that are considered to be alike
Quasi-	the comparison group is carefully selected to be as similar as possible to
Experimental	the groups that will receive the treatment
Design	
Longitudinal Design	collecting data to assess change at intervals before and during a program
Interview	a self-administered survey instrument that consists of a set of written
Questionnaire	questions to which the recipient is asked to respond in writing
Testing	collection of items designed to measure individuals' educational health, or psychological status
Attitude	employed to learn how individuals feel about other programs, or
Scale	institutions
Observation	the means by which one sees and acknowledges what happens
Documented	
Analysis	repeated review of a series of similar documents to note trends and changes over time
Site Visits	an overeaching activity within which a series of evaluation methods is employed.
Eclectic	a program that uses a variety of methods
Evaluations	741

As with reasons to evaluate and approaches to evaluation, tactics for evaluation are used in combinations, thus, Eclectic Evaluations are the most practical utilized. A combination

of several of the evaluations gives the grantmaker an evaluation program that will meet all of their needs.

Uses of Grant Evaluation Data

Once a program is evaluated the next question is what should be done with this information? "Although it is always appropriate to know and understand the outcome of a grant, it is what you do next with that information, and how you use it in shaping the next grant, that is important" (McIntosh, 1996). The most common theme throughout the literature currently being reviewed is to use grant evaluation data to improve on the next grant effort. But, as with other aspects of grant evaluation, there are other uses of the data. If the evaluation was conducted before the grant program was complete, the data can be used to improve the on-going grant program. Also, as with the PEP program, the data from the outcome of the grant evaluation can be used to determine what aspects of the grant program are the most important. The consensus in the literature is that evaluation programs should be designed so the data received will be the most beneficial to the grant program. Evaluation objectives, approaches, and methods all play an important role in the outcome of a grant evaluation study and its overall usefulness (p. 48).

A History of the PEP Program

The Phillips Environmental Partnership was founded in 1991 after Phillips

Petroleum Company discovered that states were beginning to require environmental education in the classroom, but were not allocating funding to implement programs. In response to this need Phillips Petroleum Company wanted to implement a program that:

(1) encouraged grassroots environmental activities; (2) encouraged partnerships; and (3) had an education component. Therefore, a national challenge was put forth to schools, youth groups, and nonprofit community groups to present their environmental proposal ideas to the newly founded PEP Program. The broad guidelines were set and the Oklahoma State University Center for Environmental Education (CEE) was brought in on the effort.

The Center for Environmental Education was asked to help establish a request for proposal (RFP) and to design a means to judge the proposals. With the cooperative effort of both organizations an RFP was developed and the program was announced to the public in September, 1992. With a January 15, 1993 deadline for RFP's the PEP program was underway. Knowing that the task of judging proposals would be massive, the CEE asked for help from professionals who have been leaders in environmental education. An average of 30 individuals in 1993, 1994, and 1995 came to the campus of Oklahoma State University for a day of reading and judging. Proposals were judged on a one to ten scale for each of the following seven criteria.

1. Does the proposal offer an innovative and creative approach to meeting a local environmental need?

- Does the project impact a significant number of people?
- 3. Can the project be completed in one year?
- 4. Is the project cost effective, making the best use of materials and equipment that are easily available and inexpensive?
- 5. Does the budget detail specific use of requested funds?
- 6. Does the proposal have widespread community support?
- 7. Is the program sustainable?

Each proposal was judged by two different reviewers and an average of the two scores was determined. Using the average score proposals were placed in rank order. A total of funds requested was calculated after adding each grant amount. The total amount of funds available was then superimposed on the ranked proposals to determine the number of top proposals it would be possible to fund. This list of potentially fundable proposals was then analyzed by CEE staff. With few exceptions the numerical ranking by the judging was used to allocate funds. The PEP program has continued with the same review process for three years, 1993, 1994, and 1995 with 205 grant winners for a total funding amount of \$715,057.48.

CHAPTER III

METHODS AND PROPOSALS USED TO EVALUATE THE PEP PROGRAM

This chapter provides information about the methodology used in the study and is in three parts. First is a description of the PEP winners, followed by a description of the questionnaire, and third an outline of the research design. Oklahoma State University's Institutional Review Board for Human Subjects granted permission to use the survey instrument with the PEP winner population before this study was conducted. The study was passed as exempt, because none of the human subjects names were to be included in this study and data about their personnel life was not collected nor was their behavior modified (IRB forms found in appendixes E and F). Concluding this chapter will be a discussion of how the data will be analyzed.

Methods and Approaches as Described in the Selected Literature

The PEP evaluation utilizes a variety of approaches and techniques listed in the literature. The reasons for evaluating the PEP grant program are to secure feedback and become a better grantmaker and to be accountable as a public trust. Conducting this evaluation of PEP grant projects aid in the selection process of grant winners in the future as well as giving Phillips Petroleum Company some feedback about its grant program. This information will be used to show what their PEP program has accomplished and if

proven successful encourage more support for environmental education. The outcome will be used as a public relations tool.

Approaches used for the evaluation of the PEP program include goals oriented evaluation, and public relations evaluation. Three methods were chosen as the guideline for the study: survey, questionnaire, and quantitative. The questionnaire (found in Appendix C) used in this study is really a combination of a survey and a questionnaire. The questions are tailored to evaluate the PEP program as a survey should. But, it is like a questionnaire in that the participants are asked to fill it out themselves and all of the winners are asked to do so not a random selection of winners. The study is quantitative in that it utilizes a numbering system which was used to do a correlation study.

Description of The PEP Winners

PEP winners from 1993, 1994, and 1995 will be asked to complete a questionnaire about their PEP projects. These winners come from a variety of organizations located all over the United States. Table 3.1 is a break down of the winners from all three years.

Table 3.1 Description of PEP Winners

Year of Funding	1993	1994	1995
Number of Proposals funded	73	62	68
Number of States	35	30	29
Civic Groups	21	23	18
K-12	6	10	9
Elementary	26	18	22
Elementary and Middle School	3	0	0
Middle School	7	8	5
Middle School and High School	3	0	0
High School	7	3	12

The 205 PEP winners from 1994, 1995, and 1996 were sent a questionnaire which identifies the outcome of their PEP project. The questions are a reflection of the following goals that the PEP program was created to achieve:

- 1. Form Local Partnerships
- 2. Enhance teachers ability to conduct environmental education
- 3. Reach Many People
- 4. Make the community a better place to live.

Questionnaire

A questionnaire was created to gain feedback concerning PEP project success: (1) perceived percent of project goals completed; (2) additional funding received; (3) the number of people the project has benefited; and (4) longevity of the project. These four aspects of projects receiving grants were identified as important milestones for success.

Each of the four questions were designed using a Likert type scale. The Likert Scale (Ray, 1993) was developed in 1932 as a technique for measuring attitudes. A question is asked and the answers to the question are provided and weighted by a numerical value. These numerical values are then added together to form an index. In this study the questions to be scaled are those that ask about the four aforementioned criteria for PEP project success. The index for this study ranges from 4 to 20. Four is an answer of "1" to all four questions and 20 is a total for an answer of "5" to all four questions. Thus, 20 will be the highest level of perceived project success. Using this numerical system PEP projects were ranked by their perceived level of project success. Thus, it was easier to analyze and identify which type of projects have a higher level of success.

Demographic Information

The only demographic question asked is the name and the title of the person completing the survey. The other demographic data (PEP project name, organization, etc.) were obtained from the PEP database and provided at the top of each questionnaire. This was done to save the PEP winners time and to convey the message that the, PEP program knows who they are and would like to receive a reply. (Questionnaire located in Appendix C.)

Research Design

The design of this study used a Likert-Scale Index or ranking system and a correlation design. The Likert Scale was used to rank the projects in order of the grant

authors perceived project success. Using the four research criteria for success: (1) perceived percent of project goals completed; (2) additional funding received; (3) the number of people the project has benefited; and (4) longevity of the project, the PEP winners perceptions or attitudes of their project success were measured and ranked. This aided in the determination of which types of projects are more successful and the percentage of projects that have a high level of perceived project success (high level being set at 80% of possible points or a score of 16 or above). A correlation study was conducted in order to tell if the four criteria for PEP project success: (1) perceived percent of project goals completed; (2) additional funding received; (3) the number of people the project has benefited; and (4) longevity of the project, as well as total award amount have a significant relationship with each other. For example, is there a correlation between the amount of additional funding generated and the project longevity? Table 3.2 shows how the criteria were compared to one another as well as which research objective corresponds with each comparison.

Table 3.2 Correlation Study

		Criteria	for Success		
Goals Completed	Additional Funding	Numbers Benefited	Total Award Amount	Longevity	Criteria for Success
	Research Objective 1	Research Objective 2	Research Objective 3	Research Objective 4	Goals Completed
		Research Objective 5	Research Objective 6	Research Objective 7	Additional Funding
			Research Objective 8	Research Objective 9	Numbers Benefited
				Research Objective 10	Total Award Amount

Data Collection

The 205 PEP winners from 1993, 1994, and 1995 were sent a questionnaire with a self addressed stamped envelope to encourage its return. The participants were asked to return the survey within two weeks of receiving it. The package included a cover letter that ensured the participant that the survey would be destroyed after the data was collected (See Appendix D). Before conducting this study permission from the Oklahoma State University Review Board regarding the use of human subjects was granted. The 205 questionnaires were sent out between the week of March 24 and 28, 1997. One hundred and thirty-nine responses were returned from this first mailing. A second mailing conducted the week of April 21, 1997 had a response of 11 returns before the statistics were tabulated giving a total of 150 of 205 or 73 %. Six more responses arrived too late to be included in the study. Thirteen questionnaires were returned because of incorrect addresses. It had been three years since some of them received the grant, thus, it was difficult to locate some of the authors of winning grants.

Data Analyses

The data were analyzed in three ways. First, the PEP projects were ranked using the numbers from the weighted questions on the questionnaire. The scale from the questionnaire was from 4-20, four questions each with an answer of 1-5. The highest score was a 20.

Second, the Pearson's product-moment coefficient (Guiliford, 1956) will be used to determine the relationships between the four criteria for PEP project success: (1) perceived percent of project goals completed; (2) additional funding received; (3) the number of people the project has benefited; and (4) longevity of the project as well as the total award amount of the project (that information coming from the PEP winners database). A correlation is the measure of relationships between two variables.

Correlation coefficients will be a value from 1.0 to -1.0, 1.0 being a perfectly positive correlation and -1.0 being a perfectly negative correlation. A positive correlation value indicates as one variable increases so does the other. Conversely, the negative correlation indicates that as one variable increases the other decreases. A correlation coefficient of 1.0 indicates a perfect positive relationship while a coefficient of 0.0 indicates no relationship. Correlation's were calculated between all four criteria for PEP project success and total award amount and were tested for significance on a two-tailed statistical table with a .05 probability level.

And, lastly the open-ended questions, 6a and 6b, found at the end of the survey were analyzed for positive and negative content. Numbers for both positive and negative responses were calculated and were analyzed.

Research Objectives

The research objective of this study were developed after assessing the information needs of the PEP program and following the review of literature. Table 3.3 contains the research objectives.

Table 3.3 Research objectives

To determine if a relationship exists between the winners perceived percent
of goals completed and the total award amount.
To determine if a relationship exists between the winners perceived percent
of goals completed and the numbers of persons benefited.
To determine if a relationship exists between the winners perceived percent
of goals completed and the additional funding generated.
To determine if a relationship exists between the winners perceived percent
of goals completed and the project longevity.
To determine if a relationship exists between the total award amount and
the numbers benefited.
To determine if a relationship exists between the total award amount and
the additional funding generated.
To determine if a relationship exists between the total award amount and
the project longevity.
To determine if a relationship exists between the numbers benefited and the
additional funding generated.
To determine if a relationship exists between the numbers benefited and the
project longevity.
To determine if a relationship exists between additional funding generated
and the project longevity.
To determine an overall ranking of the projects using the four research
criteria for success and a scale of 4-20.
To analyze positive and negative answers given by grant winners about
their PEP projects.
To compare most successful project type to least successful project type.
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CHAPTER IV

RESULTS AND DISCUSSION

INTRODUCTION

The purpose of this study is to evaluate the level of perceived project success of the PEP grant winners. Data were collected from grant administrators and results are divided and discussed in the following three categories in this chapter. The first section is a correlation of the success factors determining if and how the factors are significant to one another. The second category is project ranking. Projects are ranked by type (school, civic, etc.) in the order of perceived level of success using a ranking calculation from data off the questionnaire. Lastly is a discussion of the open-ended questions at the end of the questionnaire. These questions tell more about the positive and negative aspects of the PEP projects.

Statistical Data

Simple Statistics

Table 4.1 shows the simple statistics of five research criteria. The average longevity (4.6) for a project fell between 24 months and on going. The lowest mean was

for additional funding, meaning the projects averaged in the range of \$6,000 in additional funding. All the research variables received both the highest and the lowest possible answer. This and the standard deviations show that the mean does not give a true idea of the dispersion of the research criteria.

Though not completely accurate, the statistical results of the study can be extrapolated to estimate total quantities for other factors. For example, using the mean additional funding generated (2.4) which was in the range of \$6,000, it can be said that a total of \$1,230,000 in additional funding was raised. Likewise, numbers benefited has a mean of 2.45, which is in the 1,000 persons range and the implication is that a total of 205,000 people in all 205 projects benefited from the PEP program.

Correlation Data

Statistical Data for the five research criteria (percentage of goals obtained, additional funding, numbers benefited, project longevity, and total award amount) show positive correlations between three of the ten correlations made (See Table 4.2). Amount of additional funding generated and percentage of project goals, additional funding generated and total award amount, and additional funding generated and numbers benefited all showed a positive correlation within the .05 level of confidence. There were other positive correlations in the study, but they did not fall in the .05 level of confidence. For instance project longevity and amount of additional funding had a correlation of 0.90, yet even with this relatively high correlation it was not statistically significant.

Table 4.1 Simple Statistics

Variable	Mean	Standard Deviation	Minimum	Maximum
Goals Completed	4.12	0.99	I	5
Total Award Amount	3.73	1.54	1	5
Numbers Benefited	2.45	1.45	1	5
Additional Funding	2.24	1.53	1	5
Longevity	4.64	0.87	1	5

Table 4.2 Pearson's Correlation Coefficients

		Criteria	for Success		
Goals Completed	Additional Funding	Numbers Benefited	Total Award Amount	Longevity	Criteria for Success
	.9708*	.8827	.0975	.7369	Goals Completed
		.9760*	.9999*	.9003	Additional Funding
			.5574	.8954	Numbers Benefited
				.8370	Total Award Amount

^{*} Significant at .05 confidence level.

All three positive correlations in this study with significance at the .05 confidence level included the amount of additional funding generated. Two of the positive correlations were between additional funding generated and the numbers benefited, and total award amount. What must be kept in mind is that additional funds include materials and person hours on the project. It would be reasonable to say that more people would

benefit and more projects would run longer if there were a lot of support in not only the form of money, but also materials and person hours.

The positive correlation between the total award amount and the amount of additional funding shows that the amount of funding already contributed to a project is directly proportional to the amount an individual is willing to donate. It is within reason to say that an individual may be more willing to donate to a project to which money has already been donated.

The lowest positive correlation was between the goals completed and amount of additional funding with 0.09 level of significance. This shows that the amount of additional funding generated was not related to the percentage of goals completed.

These correlations will be discussed further in Chapter V, Conclusions and Recommendations.

Project Ranking

The projects were ranked by adding the answers to the four scaled questions on the questionnaire giving an answer between 4-20. Tables 4.3, 4.4, and 4.5 show how the projects ranked in the three years that the PEP program was implemented. Seven projects had a perfect score of 20. Ranks were translated to percentages, and as mentioned in Chapter III, those projects with a score of 80% or better (a score of 16) are considered successful. Thirty-nine projects had a score of 80% or better. Six of the seven projects who have a score of 100% are civic groups. Civic groups make up 18 of the 39 with a score of 80% or better. It can be argued that the reason there are so many civic groups in the top 80% is because there were 62 civic groups out of 205 total proposals funded. Forty-five civic groups returned their questionnaire, but 51 elementary groups returned their questionnaire yet only four of them were in the top 39 projects. The best ratios were junior high groups who had four out of five projects in the top 80%.

It is arbitrary to say that all of the projects below the 80% ranking were unsuccessful. Some projects may have completed all of their goals as intended, but just did not have the numbers benefited or the additional donations that other projects did Completing the proposal as it was described in the PEP application makes a grant successful. The ranking system does provide an idea of what kind of projects have the potential to rank high in all areas nor does it factor in the level of project difficulty. Civic groups were the highest ranking and there are probably several explanations for that. Civic groups do have the potential to reach more people because they have the potential to reach all ages. Also, civic groups tend to have more person power for projects than school groups. Often civic groups have professional help to write grant proposals. Classroom teachers are trying to organize projects as well as teach their classes. The same holds true for project longevity, classroom teachers often get burned out from year to year with their heavy load and the projects fizzle out. Civic groups and elementary schools having the lowest and highest rankings in this study prompt a discussion of projects from those two groups.

By reviewing PEP proposals from the higher ranked projects and those from some of the lower ranked projects in civic groups and elementary groups respectively, it is easier to understand why the civic groups have such a higher ranking. The majority of the civic groups received funding for projects that were already established, i.e. equipment or learning materials for outdoor learning areas or an outdoor learning area for an already established learning center.

The elementary projects were building environmental projects from the ground up; projects like these take a lot of effort and persistence. Acceptance from the school administration and staff as well as parents has to be established, volunteers have to be recruited. Lastly, probably the easiest part in an elementary setting, the students have to be excited about the project. It is unlikely that a project will be 100% successful after the

first round of funding. It takes a lot of time and coordination as well as practice (that the civic groups normally already have) to establish a successful environmental program.

Table 4.3 1993 PEP Winners

Project Type	Project Score	Pos./Neg. Written Comments
Civic	20	P/N
Civic	20	P
SENIOR HIGH	17	P/N
K-12	17	P
Civic	17	P
Civic	17	Р
MIDDLE SCHOOL	16	P
SENIOR HIGH	16	Р
MIDDLE SCHOOL	16	P
Civic	15	P/N
Civic	15	P/N
ELEMENTARY	15	P
SENIOR HIGH	15	P
K-12	14	P
Civic	14	P
SENIOR HIGH	14	P
ELEMENTARY	14	P/N
ELEMENTARY	14	P/N
Civic		
	14	P
SENIOR HIGH	14	P
ELEMENTARY	13	P
Civic	13	P/N
ELEMENTARY	13	P/N
Civic	13	P/N
Civic	13	P/N
ELEMENTARY	13	P
Civic	13	P
ELEMENTARY	13	P
ELEMENTARY	13	P/N
ELEMENTARY	13	Р
ELEMENTARY/MS	13	P
Civic	13	P/N
MIDDLE SCHOOL	13	P/N
ELEMENTARY	13	Р
MIDDLE SCHOOL	12	P/N
ELEMENTARY	12	P/N
ELEMENTARY	12	P/N
ELEMENTARY	12	P
SENIOR HIGH	12	P
Civic	12	P/N
MIDDLE SCHOOL	11	P/N
ELEMENTARY	11	P/N
ELEMENTARY	11	P
ELEMENTARY	10	P/N
K-12	10	P/N
	10	
Civic		P/N
Civic	10	P/N
MIDDLE SCHOOL	9	P
SENIOR HIGH	9	P/N
ELEMENTARY	9	Р
ELEMENTARY	7	P/N
ELEMENTARY	6	P/N

Table 4.4 1994 PEP Winners

Project Type	Project Score	Pos./Neg. Written Comments
Civic	20	P
Civic	20	P/N
Civic	20	P
K-12	18	Р
JH	17	P/N
K-12	17	P/N
MIDDLE SCHOOL	17	Р
SENIOR HIGH	17	Р
Civic	17	Р
Civic	17	Р
Civic	17	P
SENIOR HIGH	16	P/N
JH	16	P
K-12	16	P/N
ELEMENTARY	16	P
ELEMENTARY	15	P/N
ELEMENTARY	15	P/N
ELEMENTARY	15	P
ELEMENTARY	15	P/N
SENIOR HIGH	14	P/N
Civic	14	P
MIDDLE SCHOOL	14	P/N
Civic	14	P
Civic	14	P
Civic	14	P
SENIOR HIGH	13	P
Civic	13	P
ELEMENTARY	13	P
SENIOR HIGH	13	P/N
K-12	13	P
ELEMENTARY	12	P
ELEMENTARY	12	P
SENIOR HIGH	12	P/N
MIDDLE SCHOOL	12	P
Civic	12	P
Civic	12	P
ELEMENTARY	12	P/N
Civic	11	P
Civic	11	P
ELEMENTARY	11	P/N
ELEMENTARY	10	P
MIDDLE SCHOOL	10	P/N
ELEMENTARY	10	P/N
	10	P/N P/N
ELEMENTARY	9	
Civic		P/N
K-12 Civic	9	P/N P

Table 4.5 1995 PEP Winners

Project Type	Project Score	Pos./Neg. Written Comments
K-12	20	P/N
Civic	19	P/N
SENIOR HIGH	19	P/N
Civic	17	P/N
Civic	17	P
ELEMENTARY	17	Р
Civic	17	P
JH	17	Р
Civic	16	P
Civic	16	P
Civic	16	Р
Civic	16	P/N
JH	16	P
ELEMENTARY	16	P
SENIOR HIGH	15	P
ELEMENTARY	15	P
K-12	14	P
MIDDLE SCHOOL	14	Р
JH	14	P
ELEMENTARY	13	P/N
ELEMENTARY	13	P
ELEMENTARY	13	P
K-12	13	P
MIDDLE SCHOOL	12	P/N
ELEMENTARY	12	Р
SENIOR HIGH	12	P
ELEMENTARY	12	P
SENIOR HIGH	12	P
Civic	12	P/N
MIDDLE SCHOOL	12	P
ELEMENTARY	12	P/N
ELEMENTARY	12	P
Civic	11	P/N
SENIOR HIGH	11	P
ELEMENTARY	11	P/N
SENIOR HIGH	11	P/N
Cívic	11	P
ELEMENTARY	11	P/N
SENIOR HIGH	10	P
ELEMENTARY	10	P
SENIOR HIGH	10	P
SENIOR HIGH	10	P
K-12	10	P
MIDDLE SCHOOL	10	P/N
K-12	10	P/N
ELEMENTARY	9	P/N
University	8	P
K-12	8	P
ELEMENTARY	8	N
ELEMENTARY	8	P/N
ELEWENTARY	8	P/N

Discussion of Open-Ended Questions

There was a good response to question 6a and 6b about positive and negative outcomes of their PEP award. Most responses were weighted on the positive side with a total of 88 out of 150 responses with only positive comments. One questionnaire had just a negative response, and 61 responses had both negative and positive comments. Tables 4.3, 4.4, and 4.5 show how the projects responded (P=positive, N=negative).

The positive comments on the survey were similar on most questionnaires.

Comments about students and teachers learning, as well as positive community involvement were very common. Also, common and very important to the PEP program are the comments that the project would not have begun without PEP funding, and that PEP funding led the way for additional funding and enthusiastic volunteers. Lastly, comments about how partnerships were created due to the PEP funding were common. These comments are important because they meet some of the goals for the establishment of the PEP program: (1) encouraged grassroots environmental activities; (2) encouraged partnerships; and (3) had an education component.

Most negative comments dealt with local internal politics, the need for more funding, the time and work involved, the lack of volunteers, and dieing trees or plants. These comments go back to points made earlier, especially the internal conflicts. The school groups are the ones who encountered most of the internal political problems as well as lack of enough volunteers, again it is easier for civic groups to develop these kind of projects because organization, staffing, and administrative skills are already established. The one group who only reported a negative comment was a school group who said their

project was still in progress and they had a hard time with scheduling because their volunteers were so busy. As with most school activities it seems to be the same parents and teachers volunteering everytime, thus making it difficult for all projects to benefit.

Also, interesting to note is that most successful projects had negative comments like, the project has grown so much in popularity that there is not enough staff, or money These comments made as a negative response are really positive not negative. The ideal comments seem to be those that mention teacher and student enthusiasm as well as community partnerships and the need for more staff and funding. These projects show that they have met the goal of teaching to more than one audience and the project has grown so much that they need more help. Tables 4.6, 4.7, and 4.8 give a condensed version of the comments.

Table 4.6 1993 Positive and Negative Comments

Score	Positive Comments	Negative Comments
20	Lots of Interest by families and Schools	not enough time and staff for popularity
20	Matching funds were higher than anticipated	
17	Community partnership, student involvement	limits of time and funding
17	PEP Funding got the project going	
17	Action Projects on Wetlands, partnerships	
17	Funds created more incentive for volunteers	
16	students enjoy year after year	
16	Motivation and Opportunities for students	
16	Working with students and staff	
15	Local Community and Visitors enjoyed	Self Guided trails high maintenance
15	Trees provide pleasure for motorist	Row mowers mowed bushes and grasses
15	Prairie established doing its part for habitat study	Now movers moved busines and grasses
15	Seed money provide momentum for project	
14	Teacher interest and enthusiasm	
14	Greater Number served, Improved Ed programs	
14	PEP funding prompted additional funding	I Marie C. Carriera
14	School and community come together	More funding needed
14	United divergent school groups	Lack of support from school administration
14	A lot of trees were planted	
14	High school students help elementary students	
13	Project not possible without PEP	
13	Children's awareness of recycling	Keeping up with the quality of recyclables
13	Children more aware of trees	One more tree to plant
13	Project was continued by a local hauler	Freon containing appliances a problem
13	Local residents act as stewards	Need more funding
13	More children spend time in laboratory	
13	Field trips for students that had been cut	
13	Students learning at local school as well as others	Hard to keep up with growing ideas
13	500 Students use the site regularly	
13	Renewed interest in science by all	
13	Garden an integral part of curriculum	
13	Materials sent to all block leaders	Some didn't read it
13	Other staff members also find uses for prairie	Floods the first year
13	over 500 students benefit each year	
12	Student involvement	Lack of support from administration
12	Working together as a community	Maintenance from year to year
12	Student awareness and science scores higher	Local Maintenance Dept. Slow
12	New equipment for students hands on study	
12	Environmental Awareness Increased for students	
12	Environmental Day Camps '95, '96, '97	More funds
11	Students learn about the prairie	Business office fund handling
11	Building a Nature trail and learning about trees	Continued support beyond year 2
11	Comprehensive Env Ed Curriculum	Continued Support Deyond year 2
10	Students enjoy	Bird habitat not observable from classroom
10		
	5th graders got to work with HS Students	Staff change prevented project completion
10	Youth are Very Active	Need more volunteers for weekend sessions
10	Beautification of Museum grounds	Some trees destroyed
9	Students learn about local watershed	14/
9	Group effort, less liter at school	Was not as large as hoped for
9	Environmental awareness of students and parents	
7	Enhanced beauty of School grounds	Some trees died
6	Students and teachers learned a lot	Not enough follow through

Table 4.7 1994 Positive and Negative Comments

Score	Positive Comments	Negative Comments
20	Environmental education awareness	
20	Reached the Hispanic population about env.	Need more funding
20	Increase of recycling capabilities	
18	City saved money from project, student involved	
17	Student, community support, City donated land	Lots of red tape
17	Students learning about whales	Wants PEP staff to see final project
17	Helped the community and state with data	
17	Community involvement ever growing project	
17	Collaboration with the city	
17	Interest of Schools, teachers and students	
17	County Gov't awareness, students hands on ed.	Not enough long term funding
16	Added river watch JH and SH Curriculum	
16	Beautiful area on annual project	Needs more funding
16	Turned into an annual project	
16	Students learn, community, Parent, Business Involv	Need more funds
15	Renewed interest in wetlands education	Took Longer to complete
15	Exposure of wetlands to children	
15	Student learning model for other schools	Vandalism
15	Students enjoy	More funding needed for growing project
14	Public interest in students spending their time	
14	Community involvement and support	Vandalism
14	Outdoor Curriculum Habitat for wildlife education	
14	Computer purchased still in use	
14	Daily use of the trail	
14	Great beauty and increased wildlife habitat	
13	Lots of involvement, lot of years of use to come	
13	Beautified park, increased funding	
13	Students really enjoy	
13	Great community response, students learn	Video took a long time to complete
13	PEP funding got the whole program started	
12	Students learning, parent involvement	
12	Student awareness, 3 more grants won	
12	Students learned responsibility	Project changed hands a lot
12	Parent involvement increased	
12	Used land used for student learning	
12	Students enjoy, equipment helpful	
12	Students learning hands-on	Wanted more interest in the program
11	Dynamic education area, additional funds	
11	Information and education	
11	Most classes use trail for science lessons	Not all classes are involved
10	Greatly enhanced appearance of area	
10	Students enthusiasm	Politics, school central office
10	Communication between schools, funding for	More time than teachers have
	school	
10	Added beauty and flexibility to our campus	Lack of adequate time
9	Used for community and school learning	Some schools not committed enough
9	Quality video produced	Not enough people involved
9	Student restoration project	

Score	Positive Comments	Negative Comments
20	More participants, Students learn	
20	More student projects encouraged	Need for more equipment and funds
19	People enjoy wildlife attracted	Behind schedule
19	Student and community involved awards won	Not all students and teachers involved
17	Good water quality data	not enough volunteers
17	A lot of student and teacher participation	
17	Seed money brought publicity and student interest	
17	County Gov't awareness, students hands-on ed.	
17	Children and families exposed to nature	
16	Involvement of students, staff and communities	
16	Students are learning	
16	Greater appreciation for Arkansas ecosystem	
16	Excited students and teachers	Not much additional funding raised
16	Student awareness	
16	Students of all ages learn and enjoy	
15	Working with the community	
15	Student involvement, materials for 27 companies	
14	An outdoor classroom	
14	Habitat improvement Student Community awareness	
14	Support from comm, federal, and state agencies	
13	Students, Teachers, Parents all Env. aware	Dead Plants
13	Students & community Appreciation of Texas Veg.	
13	Student Interest, Hands-on Science instruction	
13	Env ed. materials purchased for all schools in county	Changed in Faculty messed up goals
12	Enthusiastic students and teachers	changes in raceity messes up gent
12	PEP funding gave project a jump start	Additional Funding Rejections
12	Partnerships Industry soil & water Cons	Additional Funding Rejections
12	Teachers learning from teachers	Boy scout council unresponsive
12	Funding which provide recognition	Boy scout country am coponsive
12	Involvement of local and children	Time and work
12	More updated material for outdoor classroom	New students not as enthusiastic
12	Gap bridged between students	Trew stadents not as entitusiastic
12	7 birds rehabilitated, students involved	Dead Plants
11	Encouraged communication among states	Dead Flants
11	Short term project now permanent	
11	Math and science integration, student camaraderie	
11	original Students very enthusiastic	
11		
11	Scout troop involvement increased exposure Project continues, good land use, Nature	
1.1	appreciation	
10	Students learn, Teacher training	
10	Students learning	
10	Teaching Env. Ed to Elementary Schools	
10	Students learning science and civic responsibility	
10	Useful outdoor classroom	
10	Students Working together	Dead Trees
10	Great Expansion, partnership formed	Changed focus from MS to elementary
9	Student involvement	Political, School funding
8	Student Involvement Students Haven't Lost interest	Folitical, School funding
8	Communication, Science Dept., and administration	Time askedule for horses
8	Project Still in Progress	Time schedule for busy volunteers
8	Funding provided Adv. Materials	Time it takes to educate public frustrating

Summary

In summary, with 73% of grant recipients responding, this investigation did show that positive correlations existed between all of the research criteria. The correlations between the amount of additional funding generated and total award amount, numbers benefited, and project longevity had positive correlations with a .05 level of confidence.

Ranking the projects showed a total of 39 projects out of 150 with a ranking of 16 or higher. Civic groups had the most in the top 39, with 18 total and six with a perfect score. Elementary school projects fared the worst with a total of 51 questionnaires returned and only four with a score of 16 or higher.

Lastly, the open ended items on the questionnaire provided for some interesting information about how the PEP winners perceived their project success. Most importantly the comments helped to show that the PEP program has in fact reached its original goals. The most common comments were that the project would not have been possible without PEP funding and that the PEP funding helped create partnerships with other entities in the community.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

BACKGROUND

Environmental Education projects, both community and school based have become an integral part of the environmental movement. However, because these projects are relatively new it takes a lot of effort to organize them. Organizing an environmental effort involves convincing others that environmental education is important, which makes it a difficult task. The Phillips Petroleum Company through the Phillips Environmental Partnership (PEP) provides funding for environmental projects with an emphasis on schools and community involvment. This study was conducted to determine how these projects have fared since their funding.

Conclusions

It is difficult to state conclusions without reservation in that the survey data was an estimate given by project directors and that only 73% responded. The data does not fully reflect the population as a whole.

The results of this investigation were as follows: (1) Positive correlations exist between all criteria, but the correlations of additional funding generated and project

longevity, numbers benefited, and total award amount were positive with a .05 level of confidence; (2) Project ranking showed that 39 projects had a "successful" ranking of a score of 80% or higher; (3) open ended questions at the end of the questionnaire give insight on how the PEP winners perceive there projects and how the overall goals of the PEP program are being met. The comments were primarily positive and negative responses were for local in house issues.

The Phillips Environmental Partnership has funded 205 environmental projects in a span of three years. These projects included everything from outdoor learning centers to materials for environmental curriculum. The results of the correlation study of success factors show that the amount of money provided to these projects directly affects how much additional funding will be generated. The correlations also show that a good PEP project generates additional funding which directly affects the amount of people benefited from the project and the project longevity. The weakest correlations were between additional funding and goals completed and total award amount and numbers benefited. These correlations show that the award amount does not affect the number of people benefited and the amount of additional funding is not related to the number of goals completed. Ranking of the projects show that the type of projects funded are directly related to the success of those projects, civic groups having more success overall. Lastly, the open ended questions show that the original goals of the PEP program are being met This study helps to prove that students, teachers, as well as communities are becoming more environmentally aware do to the funding from PEP, and that the continuation of the PEP program is imperative to the establishment of additional environmental programs.

Recommendations

Considering the results of this investigation, it may be said that the author of the study would recommend that civic groups rather than school groups and especially elementary groups should be funded by the PEP program in the future. On the contrary the author feels that the school groups are the ones that are in the most need of PEP funding. The question is how does PEP help these school groups to have more success with their projects. One recommendation is for a packet or book of guidelines that could be provided to school groups upon funding. The packet would help with their financial planning, volunteer organization, time management, as well as public relations. It is not reasonable to give groups funding and turn them out on their own without any sort of guideline on the most effective ways of implementing their projects. The second recommendation for school groups is to encourage them to form partnerships with local civic groups or nonprofit organizations to help implement their programs. This idea would provide the same sort of assistance that a guidebook would. Most civic groups and nonprofit organizations have more experience in organizing projects. A third recommendation is to award grants to teachers which have an environmental science or environmental education training or who show strong committment and knowledge by their membership in a professional organization such as the North American Association for Environmental Education (NAAEE).

Another recommendation is for the condsideration of future PEP review committees. It appears that projects who received more PEP funding had an easier time of raising additional funding. The additional funding was also related to extending the project and benefiting more people. The recommendation is that a closer scrutiny of projects that ask for smaller funds be conducted. Funds that go to these projects may be better utilized on projects with a large budget and in turn a higher chance for success.

Overview

The Phillips Environmental Partnership is a successful grant program that provides much needed funds to civic groups and schools for environmental projects. With some additional assistance to school groups and more partnerships between schools and civic groups the PEP program can continue to grow and become more successful.

As the PEP program grows, more people will be reached. The more people realize that they can make a contribution to the environmental movement in their own community, the more it will have an impact on the environmental movement as a whole. The environmental education movement will continue to grow if those involved continue to suppport projects in their own communities and schools. There is no better way to further the environmental movement than teaching tomorrow's leaders about the world they live in and how they can do their part to preserve it.

BIBLIOGRAPHY

A word from our grantees. (1996). Foundation News and Commentary, 22-25.

Brown, Lester R. (1993). State of the World 1993. New York: W.W. Norton and Co.

Brown, Lester R. (1994). State of the World 1994. New York: W.W. Norton and Co.

Bruker, Robert M. (1973). A historical approach to environmental education. <u>The Clearing House</u>, 48, 135-137.

Buchholz, Rogene A., Alfred A. Marcus & James E. Post. (1992), <u>Managing Environmental Issues</u>, New Jersey: Prentice-Hall.

Burnett, Maria E. (1996). Evaluation of a grantmaker. <u>Foundation News and Commentary</u>, 46-48

Caudron, Shari. (1995). The green handshake. <u>Industry Week, 244</u>, 33-35.

Costanza, Robert. (1992). Ecological economics offers a relation to nature.

Council on Foundations. (1993). <u>Evaluation for Foundations</u>. San Francisco: Jossey-Bass.

Curtis, Jody. (1993). The evaluation landscape. Foundation News and Commentary, 15.

Daniels, Stacy. (1996). Process and outcome? <u>Foundation News and Commentary</u>, 46-48

Emerson, Ralph Waldo.(1836). Nature.

Freeman, C. (1974). The economics of industrial innovation. First Edition, Harmondsworth, England: Penguin.

Guilford, J.P. (1956). <u>Fundamental Statistics in Psychology and Education</u>. New York: McGraw-Hill.

Hoffman, Andrew J. (1993). Trends in corporate environmentalism: The chemical and petroleum industries. Society and Natural Resources, 9, 47-64.

Holtz, Robert E. (1996). Environmental education: A state survey. <u>Viewpoint</u>, 27, 4, 9-11.

Johnson, Robert Matthews. (1993). 35 Keys to effective evaluating. Foundation News and Commentary, 16-21.

Kehrer, Barbara H. (1993). Seven reasons to evaluate. <u>Foundation News and Commentary</u>, 30-34.

Klaus, Rennings & Hubert Wiggering. (1997). Steps towards indicators of sustainable development: Linking economic and ecological concepts. <u>Ecological Economics</u>, 25, 25-36.

Labatt, Sonia. (1997). Corporate responce to environmental issues: Packaging. Growth and Change, 28, 67-92.

McCrea, Ed. (1992). Preliminary draft of the national environmental education report to congress.

McGlauflin, Kathy. (1991). Letter to Mary Holland, Report to the office of Environmental Education, Environmental Protection Agency.

McIntosh, Winsome. (1996). Process and outcome? Foundation News and Commentary, 46-48

Pollyghasi. (1996). A grubby shade of green. New Statement, 9, 33.

Ray, William J. (1993). Methods Toward a Science of Behavior and Experience. Pacific Grove, Ca: Brooks/Cole.

Ross, Carolyn. (1995). Writing Nature. New York: St. Martin's Press.

Serafin, Raymond. (1995). Carmakers paint their causes green, <u>Advertising Age</u>, <u>66</u>, 28-29.

Stethi, S.P. (1979). A conceptual framework for environmental analysisi of social issues and evaluation of business response pattern. <u>Academy of Management Review</u>, 4,. 63-74.

Stiedle, Walter E. (1991). The environmental education act. <u>Science and Children</u>, <u>8</u>, 21-22.

Stillman, Calvin W. (1972). Reflections on environmental education. <u>Teachers College Record</u>, 74, 195-200.

WCED (World Commission on Environment and Development), (1987). <u>Our Common Future</u>: Oxford.

APPENDIXES

APPENDIX A
PEP RFP

Be Our Partner

Is there a stream in your community that needs reclaiming? A park in need of new plantings? Or perhaps a spot on the local schoolgrounds that you'd like to see turned into an arboretum? If you're a school or local organization with an idea that could help the environment in your community. Phillips Petroleum Company would like to be your partner. We believe that the best way to help the environment comes when people work together to address their own community's needs and problems. That's why we've established the Phillips Environmental Partnership Awards - to help you make your community a better place to live.

Who's Eligible?

- · Primary and secondary schools.
- Youth groups sponsored by a school.
- Adult non-profit and not-forprofit community organizations.

We'd Like to Help Support

Habitat and Wildlife: This could be an effort to improve a public grassland or forest, or to help a designated wetland area support indigenous wildlife. Your community or school may want to work to reintroduce a bird, animal or plant species. Or restock a stream. Perhaps you have an existing program that may be in need of critical equipment or supplies to expand or continue the good work you've started.

Water: Is there a local public stream or waterway that requires clean up and other work to return it to a viable state that can support plant and aquatic life? Can you make a contribution to protecting your community's resources by developing a water conservation program? PEP

Phillips Environmental Partnerships



Phillips Petroleum Company Bartlesville, OK 74004 Public Parks and Schoolgrounds: Awards might be used to reclaim a trail, replant trees or otherwise improve a local public park. Schools may want to establish an outdoor environmental laboratory. Public gardens and arboreta can benefit from programs that create awareness and appreciation for environmental issues.

Recycling: Because recycling requires community involvement and education, your organization or school can make a difference. Awards may be used to start or enhance an individual recycling program. It's a great way to reduce waste and extend the life of the goods we use.

Environmental Education:
Phillips Environmental Partnership
Awards also will be given to local
programs that encourage environmental literacy and stewardship. If you have
an idea for a program, or if you'd like to
expand an existing program, we'd like to
know about it.

\$500-\$5,000 Awards

Phillips Environmental Partnership Awards are available in amounts of \$500 to \$5.000 dollars. Schools will receive direct awards. Community organizations will be given challenge awards to be matched on a dollar-fordollar basis. Community awards will be paid upon certification in writing that cash and pledges have been raised in an amount equal to or greater than the amount of the challenge.

The Judging

The Center for Environmental Education at Oklahoma State University will judge applications for the Phillips Environmental Partnership Awards. (Entries and supporting materials will become the property of Phillips Petroleum Company and will not be returned.)

Entries

Complete the entry on the next page. Mail or fax two copies to:

Center for Environmental Education Oklahoma State University Gunderson Hall Stillwater, OK. 74078 Fax: 405-744-7713

Judging Criteria

Entries will be judged on the following:

Approach: Proposals should demonstrate a well-thought approach to meeting a local environmental need. Special consideration will be given to innovative programs and ideas that can be completed within one year.

Objectives: Goals should be clearly defined and attainable. Special consideration will be given to programs that include measurable results.

Benefits: The ultimate benefit of the project should be explained, emphasizing the total reach or impact of the desired result. Special consideration will be given to projects that are sustainable over a period of time or have a lasting benefit.

Participation: Proposals for community projects should provide details on the depth and breadth of the local community's involvement. If more than one organization will participate in the project, identify the resources each group brings to the effort. School projects should note the number of students who will participate or benefit.

Dates

Competition for the Phillips Environmental Partnership Awards begins September 1, 1992. All entries must be faxed or postmarked by January 15, 1993. Notification of awards will be made during March 1993.

If You Win ...

Successful applicants must agree to submit a brief progress report during the project and a completion report when it is finished. Successful applicants also must agree to allow Phillips Petroleum Company to use winners' names, organizations and nature of projects in printed materials and other information vehicles.

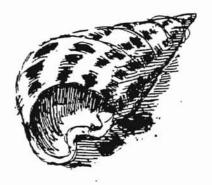
Rules and Regulations

Eligibility:

- Phillips Environmental Partnership Awards are open to public and private primary and secondary schools; youth groups sponsored by such schools; and adult non-profit or not-for-profit community organizations; they must be located within the United States.
- 2) Employee organizations of Phillips or its subsidiaries are not eligible.
- Projects must be current and documentable.
- Projects must be on public land or on private land that has been designated for public use.
- Individuals are not eligible to compete.

- 6) The following projects are not eligible: fund-raising events such a dinners, tournaments, races, etc.; trips; endowments; building construction; hazardous and toxic waste handling and disposal; and projects initiated for litigation purposes.
- All contributions are given without restriction and are to be used within the United States.
- 8) Void where prohibited by law.





Read the application form carefully and provide all information requested. Type or print clearly. Incomplete applications	PEP	 c) Resources — financial and per- sonal — that each contributes to the project.
vill not be considered. 1. Name of Environmental Project:	Phillips Environmental Partnerships APPLICATION FORM	d) Specific objectives of the proposed project. e) Who benefits? How many? How
2 Amount Requested: S	Civic Organization(fill out questions 7-13): 7. Name and location of community:	do they benefit? f) Anticipated starting and completion date of project. 11. Budget: Attach a one-page budget.
3. Category (check category that best describes your project): Wildlife and Habitat Water Parks & Schoolgrounds Environmental Education Recycling	City State 8. Population: 9. Applicant:	showing labor, material and program costs; sources and amount of funds. 12. References: Attach two one-page letters of recommendation. References should have first-hand knowledge of the environmental project being proposed and should offer a candid evaluation of its success or
Other -4. This is a (check appropriate blank): New project Existing project	Organization City/State/ZIP	effectiveness. 13. Please sign below to verify that all information submitted is true and accurate to the best of your knowledge.
Award Applicant: School School Youth Group Crvic Organization	Telephone (daytime) 10. Attach a brief description of the environmental program, not to exceed three typewritten pages: Include the following:	Signature
 Contact (the person who can answer questions about this application): 	a) A clear, concise summary of the proposed project.	Title
Name	 Names of organizations involved; brief description of each, including number of members. 	Organization
Address		Telephone (daytime)
City/State/ZIP		(over)

Telephone (daytime)

Schools & School Groups (complete questions 14-20):	environmental program, not to exceed	I have read and support this project. To the best of my knowledge, all the infor-
14. School	three typewritten pages. Include the following:	mation contained in this application is accurate.
Name .	 a) A clear, concise summary of the proposed project. 	Signature
Address	 b) Specific objectives. 	
Audiess	c) Who will be involved in carry- ing out the project?	Date
City/State/ZIP	d) What are the benefits of the project?	Mail or fax two copies of the
15. Type of school:	e) Who and approximately how many will benefit from the	application and entry materials to: Center for Environmental Education Oklahoma State University
Elementary Mid High	project?	Gunderson Hall
Senior High	 Anticipated beginning and completion date of project. 	Stillwater, OK 74078 FAX 405-744-7713
16. Enrollment:		Additional application forms can be
17. Applicant:	 Budget: Attach a one-page budget, showing labor, material and program costs; sources and amount of funds. 	obtained by writing the OSU Center for Environmental Education or: Phillips Petroleum company PEP Program
Name	20. To be filled out by the school principal.	16 D1 PB Bartlesville, OK 74004.
Title	Name	(Com
Address	Position	
City/State/ZIP	Address	
'elephone (daytime)	City/State/ZIP	l ark

All entries must be accompanied by proof of non-profit status, such as a 501 (c)(3) letter.



APPENDIX B

PEP PROPOSAL EVALUATION FORM

Project	Number	 Total Score	
7		Initials	

PEP Proposal Evaluation Form

Rank	ing- Rank each category 1 = Poor and 10 = Excellent	<u>Rank</u>
1.	Does the proposal present clearly defined objectives?	
2.	Does the project impact a significant number of people?	
3.	Does the proposal have widespread community support? - How many other organizations are involved? - Are there a variety of organizations involved? - and are the goals of the organization compatible with the objectives of the project?	
4.	Does the budget provide specific use of requested funds?	
5.	Is the project effective in the utilization of community resources? - Are they buying things that could have been donated locally? - How many other organizations are donating time and/or materials? - To what degree are external funds contributed?	
6.	Is the project cost effective in the utilization of PEP funds? - Are they buying things that could have been donated locally? - Are they buying locally or going nationally? - Are costs reasonable?	
7.	Can the project be completed in one year?	
8.	Is the program sustainable? The project does not need annual infusions of funds to run? Consider the longevity of the effects of the project?	
9.	Does the proposal offer an innovative and creative approach to meeting a local environmental need?	
	Are the environmental concepts underlying the project worthy? - Are they bulldozing a wetland to build a pond with learning stations on a dock?	
	Total	

100

APPENDIX C

PEP QUESTIONNAIRE

Project Name: Award Applicant: Address:		City:S		tate:Zip:	
Amount Awarded:_					
1. Name and Title	of the Person	Completing this o	uestionnaire:		
Estimate the nu Circle one of th			inued after fundi	ng.	
1	2	3	4	5	
0-6 Months	6-12 Months	12-18 Months	18-24 Months	24 Months-on go	ing
Estimate how n implementation		ve benefited from f the numbers be		the first year of	
1	2	3	4	5	
0 - 500	501 - 1000	1001 -1500	1501 - 2000	2001-more	
	PEP program	. Include money		m the "seed mone rials donated.	у"
1	2	3	4	5	
0-3000	3,001-6,000	6,001-9,000	9,001-12,000	12,001-more	
	eals set for your ne numbers belo		l estimate the pe	ercentage of goals	achieved.
1	2	3	4	5	
20 %	40%	60%	80%	100%	
6a. Briefly describ	oe the most pos	sitive outcomes o	f your PEP awar	d.	
6b. Briefly descri	be the most neg	gative outcomes	of your PEP awa	ırd.	

APPENDIX D PEP QUESTIONNAIRE COVER LETTER

Dear PEP Award Winner,

Congratulations on having been a former recipient of a Phillips Environmental Partnerships (PEP) Grant. As you know part of the grant award was for you to submit a project completion report. To streamline this process we have created a short questionnaire for you to complete. All former award winners are being asked to complete the enclosed questionnaire. All questionnaire responses will be confidential and responses will be tabulated and the report destroyed.

The purpose of this completion report is to assist future proposal judges in the evaluation of entries. Please respond with your best estimate of the quantities requested.

Upon the completion fold the questionnaire form so the postage paid return address shows. Tape or staple and return.

Thank You for your help with this important que	estionnaire!
Please respond by April 4.	
Dr. Tod Millo Drofossor Emeritus	Julia Claud
Dr. Ted Mills, Professor Emeritus Center for Environmental Education	Julie Cloud Research Assistant

APPENDIX E

HUMAN SUBJECTS RESEARCH APPLICATION

IRB# 80-97-002

APPLICATION FOR REVIEW OF HUMAN SUBJECTS RESEARCH (PURSUANT TO 45 CFR 46) OKLAHOMA STATE UNIVERSITY INSTITUTIONAL REVIEW BOARD

Title of project (please type): An Analysis of the Factors Leading to Successful PEP Grants
Please attach copy of project thesis or dissertation proposal.
I agree to provide the proper surveillance of this project to ensure that the rights and welfare of the human subjects are properly protected. Additions to or changes in procedures affecting the subjects after the project has been approved will be submitted to the committee for review.
PRINCIPAL INVESTIGATOR(S): Ted Mills Ted Well
(if student, list advisor's Typed Name Signature /
Julie Cloud July Clary
Typed Name Signature
Typed Name Signature
Environmental Science/CIED Graduate
Department College
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Faculty Member's Campus Address Campus Phone Number
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Student's Address Phone Number
TYPE OF REVIEW REQUESTED:
[x] EXEMPT [] EXPEDITED [] FULL BOARD
DECEIVED FEB 2 1 1997
Зу

 Briefly describe the background and purpose of the research.

The purpose of this research is to evaluate the PEP program for the success of the programs they funded. The research will aid in the selection process for future grant programs and provide Phillips Petroleum Company with an incentive to continue funding the PEP program.

2. Who will be the subjects in this study, and how will they be solicited or contacted?

Subjects must be informed about the nature of what is involved as a participant, including particularly a description of anything they might consider to be unpleasant or a risk. Please provide an outline or script of the information which will be provided to subjects prior to their volunteering to participate. Include a copy of the written solicitation and/or statement of the oral solicitation.

Subjects for this research will be those grant winners in charge of the administration of their PEP project. They will be asked to fill out a questionaire which will ask questions about the completion of their projects.

 Briefly describe each condition or manipulation to be included with in the study.

none

4. What measures or observations will be taken in the study? Copies of any questionnaires, tests, or other written instruments that will be used must be included.

Questionnaire

5. Will the subjects encounter the possibility of stress or psychological, social, physical, or legal risks which are greater, in probability or magnitude, than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests? Yes [] No [x]

If yes, please describe.

6. Will medical clearance be necessary before subjects can participate due to tissue or blood sampling, or administration of substances such as food or drugs, or physical exercise conditioning? Yes [] No [*]

If yes, please describe.

7. Will the subjects be deceived or misled in any way? Yes [] No [x]
If yes, please describe.

8. Will there be a request for information which subjects might consider to be personal or sensitive? Yes [] No [x]

If yes, please describe.

9. Will the subjects be presented with materials which might be considered to be offensive, threatening, or degrading? Yes [] No [x]

If yes, please describe.

10. Will any inducements be offered to the subjects for their participation? Yes [] No [x]

If yes, please describe.

If extra course credit is offered, what alternative means of obtaining additional credit are available?

11. Will a written consent form be used?
 Yes [] No [x]

If yes, please include the form, and if not, please indicate why not and how voluntary participation will be secured.

Note: The attached Consent Form Guideline illustrates elements which must be considered in preparing a written consent form. Conditions under which the IRB may waive the requirements for informed consent are to be found in 45 CFR 46.117(c), (1) and (2). Examples of approved informed consent forms are on file in the IRB office, in 005 LSE.

12. Will any aspect of the data be made a part of any record that can be identified with the subject? Yes [] No [x]

If yes, please explain.

APPENDIX F HUMAN SUBJECTS RESEARCH APPROVAL

OKLAHOMA STATE UNIVERSITY INSTITUTIONAL REVIEW BOARD HUMAN SUBJECTS REVIEW

Date: 02-27-97

IRB#: GU-97-002

Proposal Title: AN ANALYSIS OF THE FACTORS LEADING TO

SUCCESSFUL PEP GRANTS

Principal Investigator(s): Ted Mills, Julie Cloud

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE APPROVAL PERIOD.

APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.

ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Disapproval are as follows:

Signature:

nairh Institutional Payer B

cc: Julie Cloud

Date:March 4, 1997

VITA

Julie Eleanor Cloud

Candidate for the Degree of

Master of Science

Thesis: AN EVALUATION OF FUNDED PHILLIPS ENVIRONMENTAL PARTNERSHIP GRANTS

Major Field: Environmental Science

Biographical:

Personal Data: Born in Tulsa, Oklahoma, January 28, 1972, the daughter of Curtis M. and Donna Cloud.

Education:

- 1) Caney Valley High School, Ramona, Oklahoma, May 1990;
- Bachelor of Science Degree in Environmental Science from Phillips University in May 1994;
- Completed the requirements for the Master of Science Degree at Oklahoma State University in July, 1997.

Professional Experience:

- 1) Environmental Scientist, Envirotech, Inc., Enid, Ok March 1994 to July 1995.
- Sample Custodian, Marketing Representative, Accurate Environmental Laboratory, Stillwater, OK, July, 1995 to present.
- Oklahoma State University, Center for Environmental Education, Office Manager, August 1996 to present.
- Oklahoma Association for Environmental Education, Registrar for annual expo 1997.

Member:

- 1) North American Association for Environmental Education
- 2) Oklahoma Association for Environmental Education
- 3) Society for Environmental Scientists at Oklahoma State University