THE IMPACT OF AN ONLINE COURSE ON

ENVIRONMENTAL EDUCATION PROGRAM EVALUATION

By

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ABSTRACT

Today, there is an increased focus on consistent and routine evaluation in most sectors of our society, including education at all levels, state and federal agencies, and the granting community. Environmental educators are being increasingly challenged by opponents of EE to provide evidence of their effectiveness and by their funders and their audiences to demonstrate their results (McDuff, 2002; Thomson, 2005). In 2000, NAAEE published The Guidelines for the Preparation and Professional Development of Environmental Educators. This guide outlined a set of recommendations about the basic knowledge and abilities environmental educators need to provide high-quality environmental education. The sixth guideline addresses the need for environmental educators to possess skills in assessment and evaluation and recommends that professional preparation should provide environmental educators with the knowledge and tools for assessing leaner progress and evaluating the effectiveness of their own programs. Additionally, in 2005 the National Environmental Education Training Foundation published a report on the results of ten years of research and related studies on the status of environmental literacy in the United States. The report found that the field of EE was not as strong as it should be in routine assessment and evaluation and called for improved research, assessment and evaluation in EE.

In 2004, the Environmental Education Training and Partnership, in collaboration with the U.S. Fish and Wildlife Service/National Conservation Training Center and UWSP, designed an on-line course in EE program evaluation, Applied Environmental Education Program Evaluation (AEEPE), to address the need for professional development in program assessment and evaluation. The AEEPE course requires

participants to develop an evaluation plan for their programs. This study used a set of

four pre and post course questionnaires to evaluate the extent to which participants in the

AEEPE course implemented their evaluation plans and made improvements to their

programs within six months and one year of completing the course. Results from the

research suggest that the AEEPE course effectively provides course participants with the

knowledge, skills and tools needed to evaluate their environmental education programs.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE
INTRODUCTION

I.   **RESEARCH GOAL**
II.   **OBJECTIVES**
III.   **HYPOTHESIS**
IV.   **IMPORTANCE OF THE STUDY**
V.   **LIMITATIONS**
VI.   **DEFINITIONS**
VII.   **ABBREVIATIONS**
VIII.   **ASSUMPTIONS**

I.   **RESEARCH GOAL**

The purpose of this study is to determine the extent to which participants in

the online course entitled "Applied Environmental Education Program Evaluation,"

are implementing the program evaluation plans they develop during the course and

the impact of the evaluation on their programs.

II.   **OBJECTIVES**

1. To determine the percentage of course participants that implement the

    program evaluation plans developed during the course.

2. To determine the extent to which the course participants implement the

    evaluation plans within six months of completing the AEEPE course.

3. To determine what outcomes and strategies the course participants

    identified as a result of their program evaluations.

4. To identify what changes the course participants make to their programs based on the results of their evaluations.

5. To determine why some course participants do not conduct an evaluation of their program within six months of completing the course.

6. To identify what factors external to the AEEPE course may influence the participants' ability to implement their program evaluation plans after completing the course.

7. To evaluate the extent to which the AEEPE course provided the course participants with the knowledge and skills needed to conduct a program evaluation.

8. To provide recommendations for how the AEEPE course could be improved.

III. **HYPOTHESES**

At least 80% of the non-formal environmental educators completing the Applied EE Program Evaluation course will evaluate their environmental education program and identify strategies to improve it.

IV.   IMPORTANCE OF STUDY

Since the development of the Belgrade Charter in 1975 and the signing of the Tbilisi Declaration in 1977, the field of environmental education has evolved and been guided by these two documents. The goal for environmental education, as defined by the Belgrade Charter is:

"…a population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations, and commitment to work individually and collectively toward solutions of current problems and the preventions of new ones." (UNESCO, 1976)

The Tbilisi Declaration added to this goal a set of objectives for the EE community which have provided a framework for educators to define the desired outcomes of their programs.

With the defining of a set of goals and objectives for the EE community, has come an increased focus on the ability of educators to evaluate if these goals and objectives are being met. Environmental educators are being challenged by opponents of EE to provide evidence of their effectiveness and by their funders and their audiences to demonstrate their results (McDuff, 2002; Thomson and Hoffman, 2005).

Despite a repeatedly identified need for program evaluation in environmental education, the majority of environmental education programs do not integrate an evaluation plan into their programming (Bennett, 1974; Linke, 1981, McDuff, 2002). Traditionally, environmental education programs have been

primarily evaluated by outside consultants for the purpose of accountability (Hollweg, 1997; McDuff, 2002, Norris and Jacobson, 1998).

The need for assessment and evaluation has become a focus of environmental educators and of EE professional development efforts. In the *Guidelines for the Preparation and Professional Development of Environmental Educators,* NAAEE identifies program assessment and evaluation skills as required competencies for environmental educators that must be included in EE professional development (NAAEE, 2004).

In 2004, the Environmental Education Training and Partnership, in collaboration with the U.S. Fish and Wildlife Service/National Conservation Training Center, the North American Association of Environmental Education (NAAEE), and the University of Wisconsin – Stevens Point (UW-SP), designed a course in EE program evaluation, *Applied Environmental Education Program Evaluation,* to address the need for increased environmental educator capacity in program assessment and evaluation.

The AEEPE course is offered as an online course through UW-SP. The online format is intended to provide professional development in program evaluation to the widest possible audience of EE professionals. The online course is intended to provide educators with the knowledge, skills and abilities to design and implement evaluation plans at their work.

The AEEPE course requires participants to develop an evaluation plan for their programs. In evaluating the extent to which the course participants implement their evaluation plans and make improvements to their programs based on their

evaluations, it will be ascertained whether the AEEPE course is effective in increasing the participants' capacity for implementing program evaluation and whether the implementation of program evaluation will result in increased identification and implementation of strategies for program improvement.

V.   LIMITATIONS

1. Some AEEPE students will not have a program available for which to implement an evaluation plan.

2. Some students may evaluate their programs for reasons other than the purpose of program improvement, such as for reporting program results to funders.

3. AEEPE students who do not complete or pass the course will not be included in the post-course evaluation.

4. Some questions posed in the survey are a measure of student satisfaction and therefore may contain conscious or unconscious misrepresentative responses.

5. The study will only examine the outcomes achieved within a six month time following the summer and fall 2006 courses and the outcomes achieved within one year following the spring 2006 course.

6. The study will be limited to participants that have completed the "Applied Environmental Education Program Evaluation" course during the Spring, Summer and Fall of 2006.

VI. DEFINITIONS

Assessment: the process of gathering information about [learners] – what they know and can do. (Hart, 1994)

Distance Education: a field of education that focuses on the pedagogy/andragogy, technology, and instructional systems design that are effectively incorporated in delivering education to students who are not physically "on site" to receive their education. (Wikipedia, 2006)

Environmental Education: a multidisciplinary field of education that focuses on the process of recognizing values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the inter-relatedness among humans, their culture, and their biophysical surroundings. (Palmer, 1998)

Online: connected to, served by, or available through a system and especially a computer or telecommunications system (as the Internet). (Webster.com, 2007)

Online Course: An umbrella term for providing computer instruction (courseware) online over the public Internet, private distance learning networks or in house via an intranet. (Computing-dictionary.thefreedictionary.com, 2007)

Nonformal Education: Nonformal education has been defined as any intentional and systematic educational enterprise (usually outside of traditional schooling) in which content is adapted to the unique needs of the students (or unique situations) to maximize learning and minimize other elements which often occupy formal school teachers (i.e. taking roll, enforming discipline, writing reports, supervising study hall, etc.). (Etllng, 1993)

Program Evaluation: the systematic collection of information about the activities, characteristics, and outcomes of programs for use by specific

people to reduce uncertainties, improve effectiveness, and make decisions with regard to what those programs are doing and affecting. (Patton, 1997)

VII.   ABBREVIATIONS

AEEPE: Applied Environmental Education Program Evaluation

D2L: Desire2Learn online course platform
 The distance learning software that is used to administer online courses through UW-SP

EE: Environmental Education

EETAP: Environmental Education and Training Partnership

NAAEE: North American Association for Environmental Education

UW-SP: University of Wisconsin – Stevens Point

VIII.   ASSUMPTIONS

1. There is a need for program evaluation in environmental education

    programs.

2. The students enrolled in the online course have an interest in evaluating

    their programs.

3. The post-course survey design provides valid questions/items that allow

    course participants to successfully communicate the extent to which their

    program evaluation is implemented.

CHAPTER TWO
LITERATURE REVIEW

I. INTRODUCTION

Since emerging as a professional field in the 1970's, environmental education has made significant progress toward mainstream educational acceptance. Over the years, the field has "developed and institutionalized well thought-out educational approaches and gathered considerable evidence of academic efficacy." Today, NEETF/Roper research reveals that 90% of American adults think that environmental education should be taught both in and outside of school (Coyle, 2005).

With increased interest and acceptance of EE within our society and the mainstream education system, has come increased focus on the field's ability to demonstrate its results. Funding agencies, local, state and federal agencies, critics of EE, program audiences, and the educational system are requiring greater use of evaluation within EE (Thomson and Hoffman, 2005).

Yet there continues to be a lack of widespread program evaluation, research and assessment within the field of EE, as well as a lack of confidence among professionals in the field in their ability to utilize assessment and evaluation in their programs and lessons (Coyle, 2005; Thomson and Hoffman, 2005; NAAEE, 2002). In a study conducted by the North American Association of Environmental Education (NAAEE) assessing the needs of professionals in the field of environmental education, knowledge and skills in the area of evaluation and assessment was ranked second in overall importance (NAAEE, 2002).

Despite this identified need, local and state organizations and educational institutions are often unable to provide training or resources to support educators in developing skills and knowledge in the field of program evaluation; particularly in the field of nonformal environmental education program evaluation (NEEAC, 1996).

In 2004, the Environmental Education and Training Partnership, in collaboration with the U.S. Fish and Wildlife Service/National Conservation Training Center and UWSP, designed an on-line course in EE program evaluation, *Applied Environmental Education Program Evaluation,* to address the need for professional development in environmental education program assessment and evaluation.

II. THE ENVIRONMENTAL EDUCATION AND TRAINING PARTENRSHIP

The Environmental Education and Training Partnership (EETAP) is considered a "national leader in the delivery of environmental education training to education professionals" (EETAP, 2005). EETAP was created in 1995 to manage a five-year grant from the U.S. Environmental Protection Agency (EPA) that was awarded to a consortium of universities and nonprofit organizations working in the field of environmental education (NAAEE). This grant was extended for periods of three years in 2000, 2003, and 2006. In 2000, when the EPA grant was renewed for the first time, the EETAP leadership was passed from the North American Association of Environmental Education (NAAEE) to the University of Wisconsin – Stevens Point (UWSP). The University of Wisconsin – Stevens Point will continue to manage the EETAP program, until the culmination of the project in 2010.

The goal of EETAP, as defined by the EPA, is to "increase the public's ability to make responsible environmental decisions by providing training on how to develop and implement quality environmental education (EE) programs" (EPA, 1998). Key EE issues identified by EETAP include, "a fragmented EE field; limited success in incorporating EE into mainstream education and environmental decision-making; challenges in reaching people of color communities; and insufficient resources" (EPA 2001). To address these issues, EETAP identified a list of strategies, including, " promoting quality EE that is scientifically and educationally sound, reaching a wide range of educators, and using the internet to improve access to education and facilitate communication" (EPA, 2001)

EETAP applied this strategy in 2004, when it provided the funding and support necessary for the development and implementation of the *Applied Environmental Education Program Evaluation* (AEEPE) online course. The AEEPE course is funded through the EETAP grant provided from the EPA and is administered and managed by the University of Wisconsin – Stevens Point (UW-SP). Through the development and implementation of the AEEPE course EETAP has demonstrated a significant commitment to providing professional development opportunities for environmental educators world wide and has contributed to achieving one of its key initiatives; to promote capacity building in environmental education training by the EETAP partner organizations and universities (Wells and Fleming, 2002).

III. ENVIRONMENTAL EDUCATION

Environmental Education has been an evolving idea and concept since the mid-1900s. The 'founding' of environmental education is attributed by some to Sir Patrick Geddes, who pioneered instructional methods that involved taking learners into the natural environment (Palmer, 1998). In 1948 Thomas Pritchard, the deputy director of the Nature Conservancy, first suggested the need for a field of education that synthesized the natural and social science and coined the term "environmental education" (EETAP, 1997). The first official international acknowledgement of environmental education as an emerging field occurred at the United Nations Educational, Scientific and Cultural Organization (UNESCO) Biosphere Conference in Paris in 1968 (Palmer, 1998). Over the course of the two decades following the UNESCO Biosphere Conference, the field of environmental education began to grow in national recognition and importance. By the

1992 United Nations Conference on Environment and Development, also called the

"Earth Summit," environmental education was recognized at the forefront of global

importance. One of the most significant documents to come out of this conference was

Agenda 21, which outlined goals and strategies for sustainable development and stressed

the need for environmental education to achieve sustainable societies (Palmer, 1998).

A. Defining Environmental Education

According to Palmer in *Environmental Education in the 21st Century,* the first

recorded use of the term 'environmental education' was at a conference on conservation

and education at Keele University in England in 1965. Previous to that point, though,

widespread popular interest in the natural world around the turn of the century had led to

the field of 'nature study' or 'environmental studies,' which focused on the teaching of

history, geography and biology in the field.

The definition of environmental education was first discussed on an international

level at the 1968 UNESCE Biosphere Conference. The definition that was agreed upon

was reported by the World Conservation Union (IUNC) in 1970. This definition is

widely accepted as the classic definition of EE.

> *Environmental Education is the process of recognizing values and*
>
> *clarifying concepts in order to develop skills and attitudes necessary to*
>
> *understand and appreciate the inter-relatedness among man, his*
>
> *culture, and his biophysical surroundings. Environmental Education*
>
> *also entails practice in decision-making and self-formulation of a code*

of behavior about issues concerning environmental quality. (Palmer, 1998)

The next significant event that would contribute to the definition in EE was International Workshop on Environmental Education held in Belgrade, Yugoslavia in 1975 and the development of the Belgrade Charter. The Belgrade Charter established a goal, set of objectives, and guiding principles for environmental education. The goal of EE, as defined by this document is:

> *To develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones.* (UNESCO, 2006)

In 1977 the world's first intergovernmental conference on environmental education was organized by UNESCO in cooperation with the U.N. Environment Programme (UNEP) and was convened in Tbilisi, Georgia (USSR). Out of this conference emerged the Tbilisi Declaration, which identified the "role of environmental education in the preservation and improvement of the world's environment, as well as in the sound and balanced development of the world's communities." The Tbilisi Declaration is considered to be one of the most important seminal documents in environmental education (Hungerford, Bluhm, Volk, and Ramsey 1998). The Tbilisi Declaration contributed a set of objectives for the EE community which have provided a framework for educators to define the desired outcomes of their programs.

B. Goal of Environmental Education

As the field of EE continues to evolve, the definition, goals and objectives of EE continue to be reexamined and redefined. While environmental education has been defined and redefined many times over the last 30 plus years, there is general agreement within the field that the primary goal of environmental education is to create an environmentally literate society (NAAEE, 1998).

In a time when the world is experiencing increasingly complex environmental problems that can not be solved by the environmental experts alone and the public is becoming aware of and concerned about decreasing contact with and connection to the natural world, public environmental literacy has come to be viewed as a necessity among most sectors of our society. The belief among both the general public and the field of environmental education is that "competent and well-applied environmental education" can help to create an environmentally literate society and result in "an improved environment, better planned communities, a more vibrant economy, and even optimal human health" (Coyle, 2005).

While research has shown that public environmental awareness is high, it has also shown that after 30 plus years of environmental education in the U.S. public environmental literacy is still low. (Coyle, 2005). The 1999 National Report Card on Environmental Knowledge, Attitudes and Behaviors gave the U.S. an "F" on their understanding of causes of basic environmental problems in the 21st Century (NEETF/Roper Starch, 1999). Six years later a report on ten years of study on environmental literacy still found that only an estimated 1% to 2% of the people in the

U.S. have sufficient environmental knowledge and skills to be considered

environmentally literate. (Coyle, 2005)

If environmental education is to be the key to greater public environmental

literacy, increased research and program evaluation will be required to develop the

formal and non-formal EE programs that may be able to achieve the goal of

environmental literacy.

C. Challenges of Environmental Education

In addition to achieving the desired goal of widespread public environmental

literacy, the field of environmental education is constantly challenged to keep up with

new and relevant information and research; develop innovative techniques and tools that

can effectively reach their diverse audiences; balance the thin line between education and

advocacy; foster both cognitive and emotional connections between their audiences and

the environment; inspire changes in beliefs, attitudes, values and behavior; demonstrate

the outcomes and benefits of EE to their audience and critics; and secure funding

(Hudson, 2007; Kraut, 2000).

To meet these challenges, environmental educators will need increased training

and professional development in the knowledge and skills that will help them to better

address the challenges. Additionally, they will need to improve their use of program

evaluation in order to better identify the strengths and weaknesses of their program,

improve their programs, and demonstrate their results to their funders, audience, and

critics.

D. Environmental Education Implementation

Environmental Education is a field of education that, more than any other school subject, is taught as often or more often in the non-formal educational setting as it is in the formal classroom. Because of this unique situation, environmental educators may fall under the titles of teacher, non-formal educator, park ranger, and naturalist, among others.

In the formal education classroom, environmental education is often taught as a part of a science lesson. In some cases EE is an integrated subject that is woven into lessons taught in every subject or offered as a separate class that examines the distinct subject of environmental science. In the formal classroom environment, environmental education is usually part of a lesson or series of lessons that last for multiple days, over the course of the semester, or over the course of the school year. In this environment, the lesson content is generally expected to meet state educational standards and testing content areas. Usually, formal EE is taught by a formal school teacher who is also responsible for teaching related and/or unrelated subject areas (CSI, 2007; Palmer, 1998).

Non-formal EE, may be taught by guest presenters in a school setting, but is generally taught at sites external to the school classroom. Non-formal EE falls in between the formal and informal branches of EE. Non-formal EE encompasses classes and public programs provided at nature centers, parks, environmental education centers, museums, zoos, aquariums, camps, and field stations, among other sites. EE lessons and programs at non-formal education sites, generally last for a period of a few minutes to a few days. In some situations the sites providing the EE program partner with the schools or individual teachers to provide programming that meets state education standards. In other instances, these programs are designed to meet the NAAEE Guidelines for

Excellence in Environmental Education. Most of the non-formal EE programs, though, are not required to meet any specific set of standards or guidelines. In general, non-formal environmental educators work specifically in the field of environmental education, although they may also be responsible for teaching science education topics, history topics, and archeology topics, among others at their site (EETAP, 2006).

IV. PROFESSIONAL DEVELOPMENT IN ENVIRONMENTAL EDUCATION

The term "professional development" refers to the pre-service and in-service training and learning activities that professionals engage in to prepare for their careers and to continue to develop and improve their knowledge and skills in their field throughout their careers. Effective professional development can play a critical role in both the success of an environmental educator and the success and efficacy of the EE programs that they are engaged in. (Meredith et al., 2000)

The preparation of teachers has been widely recognized as a priority for environmental education. Yet, the current status of EE in teacher education remains at an unsatisfactory level. "Few, if any, teacher training programs adequately prepare teachers to effectively achieve the goals of environmental education in their classrooms" (Wilke, Peyton, & Hungerford, 1987)

Because the objectives and strategies of EE often differ from traditional education (Fein, 1996), professional development opportunities that are specific to EE and available to both formal and non-formal educators need to be more widely accessible to environmental educators. With the wide range of environmental education teaching sites and educators, providing professional development opportunities and training can be a

challenge. Formal teachers often have continuing education opportunities within their field, although those which focus on environmental education are limited. Non-formal educators are often provided with EE training at their place of work, but may not be exposed to many other professional development opportunities.

To reach the widest possible audience of formal and non-formal educators, professional development opportunities will have to be offered through a variety of avenues, including workshops and conferences, graduate courses, mentoring programs, distance and online learning, and professional certification programs (Meredith, 2000).

A. Environmental Educator Certification

Recent changes in educational policy have led to an increased focus on student assessment and teacher accountability. More and more school districts, states and members of the public are holding teachers responsible for the performance of their students. This increased focus on accountability in the formal education setting has also pervaded the non-formal education sector, including the field of environmental education.

Within formal education, teachers are required to demonstrate basic competencies in their subject areas and attain certification to teach in the schools. However, until recently there have not been any guidelines or defined competencies to gauge the competence of environmental educators nor has there been required certification for environmental educators.

To address the need for guidelines in the field of environmental education NAAEE, with the involvement of hundreds of individuals and organizations, developed a series of publications that outlined a set of guidelines for environmental education, the

NAAEE Guidelines for Excellence. In 2000, NAAEE published *The Guidelines for the Preparation and Professional Development of Environmental Educators*. This guide outlined a set of recommendations about the basic knowledge and abilities environmental educators need to provide high-quality environmental education (EETAP, 2000).

These guidelines for excellence have recently been translated into a set of competencies for environmental educators seeking certification. Professional certification that demonstrates the knowledge and experience of its practitioners, while not a new idea, is relatively new to the field of EE. Currently five states offer certification in environmental education: Utah, Kentucky, Texas, North Carolina and Florida and two additional states, Colorado and Nevada, are developing environmental educator certification programs with grants from EETAP and support from NAAEE. While these certifications will be offered at the state level, accreditation of the state programs will be assigned at the national level. (NAAEE, 2004).

Environmental educators seeking certification in their respective states will be expected to demonstrate a set of competencies based on the guidelines for excellence. These competencies or guidelines are divided into six themes. The sixth theme addresses the need for environmental educators to possess skills in assessment and evaluation and recommends that professional preparation should provide environmental educators with the knowledge and tools for assessing leaner progress and evaluating the effectiveness of their own programs (Glenn, 2006).

V.   ENVIRONMENTAL EDUCATION PROGRAM EVALUATION

"Evaluation is the systematic assessment of the operation and/or the outcomes of a program, compared to a set of explicit or implicit standards, as a means of contributing to the improvement of the program." (Weiss,1998). Evaluation helps to answer the question, "is the program achieving its objectives, or is the program doing what we want it to do?" (Meredith et al., 2000).

In the field of EE, effective program evaluation can provide information on the strengths and weaknesses of a program, provide guidance on how to revise existing programs and develop new ones, provide a means for accountability to the organizations who sponsor EE program and the learners who engage them, and make it possible for EE providers to retain and expand programs by demonstrating their effectiveness to sponsoring organizations, administrations, funding agencies and policy setters (Meredith et al, 2000; Thomson & Hoffman, 2006; Wiltz, 2000).

A. Traditional Program Evaluation

In the past few decades, consistent and routine evaluation has become a standard in most sectors of society, including within educational, state and federal agencies, and the granting community. Evaluation has become an important tool for determining program funding and decision-making, organizational learning, accountability, and program management and improvement. (Thomson & Hoffman, 2006)

Some evaluations study process while others examine outcomes and effects. Generally the activities and outcomes of a program are the focus of an educational program evaluation. Within educational evaluation the activities of the program may

encompass how the program is delivered or who delivers the program. Educational outcomes may evaluate changes to the participants' skills, knowledge, attitudes, and/or values change. (Thomson & Hoffman, 2006)

Most evaluations within the educational system and other sectors of society focus primarily on results or outcomes. Outcomes can be both the effects that the program intended and the effects that a program did not intend. Outcomes demonstrate what changes occurred as a result of a program, such as increases or decreases in knowledge or changes in behavior. Outcomes communicate to the organization, stakeholders, funders, audience, and program designers what is happening as a result of the program, what is being achieved, what is not being achieved, and what needs to be reexamined or changed.

Evaluations are generally conducted at one or more stage of a program development and implementation and can be categorized into three stages: front end, formative and summative.

"When the cook tastes the soup, that's formative evaluation; when the guest tastes it, that's summative evaluation." (Weiss, 1998)

Front end evaluations, or need assessments, are usually undertaken before a program is planned and implemented. Front-end evaluation can be used to identify the target audience for a program, assess the resources and needs of the organization to be able to implement the program, determine the problem that the programming will address, assess whether there is a need for the program and identify the best method for reaching the target audience.

Formative evaluation starts at the beginning of a program and continues through the life of a program. Formative evaluations gather information on the effectiveness of

the program delivery and learning and satisfaction of the audience to provide feedback during the course of a program in order to improve the program, determine staff training needs, and determine whether the goals and objectives of the program are being achieved.

A summative evaluation is usually conducted at the end of a program and can provide information about the program's effectiveness, participant satisfaction, short term outcomes, medium term outcome and long term outcomes. Summative evaluations that are conducted immediately after the completion of a program can not effectively evaluate the medium or long term outcomes of a program, however post delayed summative evaluations can evaluate these outcomes. Programs are seldom "finished;" they continue to adapt and modify over time, in response to internal and external conditions. Therefore, summative evaluation results often serve as formative evaluation feedback to inform program staff and improve programs.

Ideally, there is a combination of evaluations being conducted for the same program that are outlined in a logic model and evaluation plan. The logic model outlines the actual and desired inputs, outputs and outcomes of a program. The evaluation plan outlines how the inputs, outputs, and outcomes identified in the logic model will be evaluated (AEEPE, 2006; Meredith, et al, 2000; Thomson & Hoffman, 2006; Weiss, 1998).

According to Thomson and PlanNet Limited, effectively designed evaluation will help organizations to know what to expect from project activities; identify who will benefit from the expected results; gather information to know whether the project is achieving what they want; identify how to improve project activities; maximize positive influences and avoid or overcome negative influences; communicate plans and

achievements more clearly to people and other organizations; gain from the knowledge, experience and ideas of the people involved; and provide accurate and convincing information to support applications for funding (Thomson & Hoffman, 2006).

"At its core, program evaluation is really all about collecting information about a program or some aspect of a program in order to make necessary decisions about the program." (Thomson & Hoffman, 2006).

B. Environmental Education Program Evaluation

"Today, more than ever, society needs high-quality environmental education programs that succeed in moving values and changing behaviors in the direction of sustainability and environmental conservation. Effective, relevant evaluation offers a very powerful way to improve these education programs and enables them to succeed in accomplishing more of their objectives and goals." (Thomson, 2006).

Historically, there has been minimal attention paid to evaluation in the field of environmental education. Today, however, there is increased focus on program evaluation and demonstrated results in the field of environmental education. Many state and federal agencies, as well as most funding agencies are now requiring demonstrated accountability in environmental education programming, including program monitoring and auditing and formal evaluations to determine whether the intended program outcomes are being achieved (Wiltz, 2000).

Well designed program evaluation can help meet these new requirements, as well as provide environmental education professionals with concrete ideas on how to improve the management and delivery of their programs. Evaluation can help an organization

measure how well they are accomplishing their mission, determine whether the goals and objectives of their programs are being met, guide program improvements and development and help to effectively allocate resources. (AEEPE, 2006; Thomson & Hoffman, 2006; Wiltz, 2000) "A good evaluation program can improve the education that students receive." (Thomson & Hoffman, 2006).

Within the profession of EE, the field's leading professional organization, NAAEE, has outlined a set of recommendations for developing and administering high quality nonformal environmental education programs in the *NAAEE Nonformal Environmental Education Programs: Guidelines for Excellence.* Program evaluation is one of the key areas emphasized within these guidelines. "Nonformal environmental education programs define and measure results in order to improve current programs, ensure accountability, and maximize the effects of future efforts." (NAAEE, 2004b).

Seen as part of the larger process of continual improvement of environmental education programs, good evaluation has the potential to improve program quality over the long term. As such, a good evaluation program can improve program quality, improve student learning, and ultimately assist the program to achieve its goals, which may include such things as higher degree of student involvement and benefits to the environment. (Thomson & Hoffman, 2006)

C.   Challenges

Although systematic and consistent evaluation of environmental education programs can result in improved programming, increased funding opportunities, improved support of EE programming, and more effective communication between

organizations and their stakeholder, there are many challenges that limit effective use of evaluation within the field of environmental education.

Most environmental education professionals receive training in scientific methods educational techniques, or program administration. Few receive formal training in administrative skills or program evaluation when they enter the field. As a result methods of evaluation are often poorly understood among EE professionals.

Despite a lack of training in evaluation, most environmental education professionals, at some point in their career, will be a part of or responsible for an evaluation of their programs in order to receive funding or report to their stakeholder.

Another challenge for effective environmental education program evaluation is the unique goal of environmental education – to create an environmentally literate public who demonstrate environmentally responsible behaviors, actions, and choices – which can be exceptionally difficult to measure and evaluate. A survey of environmental educators in Canada revealed that, of all of the participants in the survey, most could not identify techniques to measure EE outcomes and not one could identify a indicator to measure and evaluate value shifts, behavioral changes, environmental action, or even benefits resulting from environmental education. (Thomson & Hoffman, 2006). "The real things, the ways in which environmental education can change someone's life, are much more subtle and difficult to measure." (Kool, Rick 2000)

Evaluation planning and implementation can be very challenging in the field of environmental education where training in evaluation is not common, staff time is stretched to the limit, and behavioral and attitudinal outcomes are difficult to measure. However, "with better designed and evaluated programs, the resources (e.g. funds, staff)

best used to accomplish outcomes will help increase environmental literacy and lead to greater protection of natural resources." (Wilke & Jeppesen, 2004)

VI. DISTANCE EDUCATION

While there are many definitions of distance education available, the three key characteristics that define distance education are: the separation of instructor and learner in space and time; student-centered learning; and noncontiguous communication between the student and teacher, mediated by print or some from of technology (Sherry, 1996). In on-line education, learning results from both individual study of materials and conversation with course peers and the instructor (Briano et al, 1997).

The earliest form of distance education took place in the form of correspondence courses. This method was later substituted for instructional radio and television-based courses. Today, distance education has expanded into the online World Wide Web (Sherry, 1996).

In distance education courses, the teacher "augments prepared study materials by providing explanations, references and reinforcements for the student." The goal of distance education is to achieve optimum learning outcomes, despite distance. "Faculty engaged in distance education must be adept at facilitating student's learning through particular attention to process, unlike class-room based teachers whose traditional role is to select and share content." (Beaudoin, 1990).

A. Disadvantages

Distance education (DE) environments can present some disadvantages and challenges for both students and instructors of DE courses. One of the greatest challenges within a DE course can be communication. Because courses are asynchronous and/or noncontiguous, dialogue often takes place through written communication and is not immediate. As a result the learner may feel that the environment is less inclusive and/or conducive to effective dialogue (Beaudoin, 1990). Additionally, the distance education learning environment, and in particular the online environment, may be more effective with some learning styles than with others. Visual and solitary learners will most likely find the DE learning environment more conducive to learning than auditory, kinesthetic, and social learners.

Because most of the interaction and work involved in a DE course takes place in written form, DE courses can be more time consuming than a standard classroom-based course for both the learners and the instructors (Beaudoin, 1990). Additionally, DE courses that are offered online can be a struggle for 'Technology/Digital Immigrants,' people who acquire their first computers as adults (VanSlyke, 2003). Those participants that are over the age of 30, such as environmental educators who enroll for professional development, non-traditional students, and often the course instructors may find the online format very challenging compared to the classroom setting that they are used to.

B. Advantages

While there may be disadvantages to distance education courses for some course participants, for many the disadvantages are outweighed by the advantages. One of the

greatest advantages of a distance education course is that it can usually be taken from any location without time specifications or limitations. For learners that do not have access to an educational institution, DE courses can provide them with opportunities for learning and professional development that they would not otherwise have access to. Additionally, DE courses can increase the student capacity of a course.

Other advantages of distance education courses that have been identified include increased student autonomy, self-directed learning and improved communication and one-on-one relationships between the learner and the instructor, increased communication between distant professionals within a field, and more detailed instructor feedback. For the instructors, distance education courses, especially those taught online, generally produce a greater quantity of outputs that can be used to evaluate the learners as well as the course.   "Interaction in an online format is constantly available in written form, presenting potentially powerful tools for analysis, review and synthesis." (Beaudoin, 1990).

Thousands of adults worldwide have been served through distance education. "When good practices in distance education are established and met, countless others can benefit from the proliferation of DE programs" (Beaudoin, 1990).

C. Distance Education and EE Professional Development

One of the great challenges of environmental education professional development is providing environmental educators with sufficient access to professional development and training opportunities. Many environmental educators are stationed in remote areas that may not be located near an educational institution. Additionally, with

the relatively small size of the field of EE, organizations, institutions, and individuals that offer professional development and training opportunities for environmental educators are not widespread.

Online training courses can provide environmental education professionals with opportunities for training and learning that they would not otherwise have access to. Additionally, online training courses can be especially effective for those in the education field. "With online training courses, teachers involved in projects become aware of the possibilities offered by interaction and collaboration not just with colleagues in their own school, but those working elsewhere. Participants in online training become aware of the possibility of accessing authoritative sources and information." (Beaudoin, 1990).

Distance education courses can open lines of communication between professionals in the widespread environmental education community and provide opportunities for idea sharing, inspiration, and advancement within the field (Briano et al, 1997). Sharing personal experiences related to the subject being studied can play a key role in collective growth of the group.

D. EETAP and Distance Education

Based on the success of the first environmental education online course, "Fundamental of Environmental Education,' developed through EETAP and UW-SP, it was decided that the AEEPE course would also be offered through the online course format to make the course available to widest audience of environmental educators and natural resource professionals. The AEEPE course is attended through the UW-SP online

platform, Desire 2 Learn. (Dillard, 2006) To date, EE and natural resource professionals from 46 states and 12 countries have enrolled in the AEEPE course.

VII. THE APPLIED ENVIRONMENTAL EDUCATION PROGRAM EVALUATION ONLINE COURSE

To help address the need for increased training in program evaluation in the field of EE, a team of experts in the field of EE and evaluation were assembled to design a course in environmental education program evaluation. Resources and experts employed in the development the course came from the U.S. Fish and Wildlife Service National Conservation Training Center, the University of Wisconsin-Stevens Points, the Environmental Education and Training Partnership, and NAAEE.

A. History and Development

The development of the "Applied Environmental Education Program Evaluation" course began in the spring of 2004. The course was a joint project of EETAP, UW-SP, and U.S. Fish and Wildlife National Service National Center for Conservation Education (FWS/NCTC) staff.   The course design and implementation was led by Dr. Richard Wilke, Distinguished Professor of EE at UW-SP and Georgia Jeppesen, Education Specialist with FWS/NCTC. Janice Easton, a Ph.D. candidate in the department of Agriculture Education and Communication at the University of Florida and Dr. Lyn Fleming, a consultant with Research, Evaluation, and Development Services were brought on as evaluation specialists and course instructors. In June 2004 the design team outlined the course objectives, format, content and structure.   The course content was

based on a residential course offered through NCTC, entitled, "Education Program

Evaluation" (Dillard, 2006).

Based on the success of the first environmental education online course,

"Fundamental of Environmental Education,' developed through EETAP and UW-SP, it

was decided that the AEEPE course would also be offered through the online course

format (Dillard, 2006).   The course was to be available as a non-credit workshop course,

a 3 credit undergraduate course, or a 3 credit graduate course.   In fall of 2004 the course

was offered as a UW-Extension course for the first time through the Desire2Learn online

platform used by UW-SP.

Since the first course in fall 2004, the impact of the course has been widespread:

to date, EE and natural resource professionals from 46 states and 12 countries have

enrolled in the AEEPE course.

B. Course Content

The purpose of AEEPE course is to provide participants with an overview of

program evaluation and an opportunity to practice skills designing and using evaluation

tools for environmental education and outreach programs.   The goal of the course is to

provide the participants with the knowledge, tools, and confidence needed to conduct

evaluations of their environmental education programs.

To achieve this goal, the course provides the participants with opportunities to

practice skills designing and using evaluation tools for EE and outreach programs;

requires that the participants create an evaluation plan to be used to evaluate a program at

their sites; and requires that the participants develop evaluation tools, including

observation forms, questionnaires, and interview or focus group guides. Participants that do not have a program are given the option of creating an evaluation plan and tools for a hypothetical program or they are provided example programs. By the end of the course, the participants should be able to:

- state the purposes, benefits and importance of educational program evaluation.
- distinguish among front-end, formative and summative phases of evaluation.
- write measurable program objectives that link program development and evaluation.
- develop a logic model and evaluation plan for an environmental education or outreach program.
- state when and how to use data collection tools.
- develop data gathering tools such as: an observation form, an interview or focus group guide and a questionnaire.
- develop an alternative assessment tool such as a concept map, KWL chart or portfolio and an associated scoring tool to judge performance.
- analyze and interpret quantitative and qualitative data gathered from evaluation tools. (AEEPE, 2006).

C. Evaluation of the Course

In fall 2004, spring 2005, summer 2005, and fall 2005, Jennifer Dillard, a graduate student at the University of Wisconsin Stevens Point evaluated the effectiveness and participant knowledge gain resulting from completing the AEEPE course. In her 2006 thesis, *The evaluation and revision of an online course entitled, "Applied*

Environmental Education Program Evaluation," Dillard determined that the course successfully provided participants with the knowledge, skills, and confidence needed to conduct program evaluations (Dillard, 2006).

Although Dillard successfully determined the short term outcomes of the AEEPE course, medium and long term outcomes resulting form the course were still unknown. The evaluation of medium term outcomes resulting from the course may help to identify the extent to which the goals of the AEEPE course are being achieved, provide justification for the development and implementation of assessment courses for environmental education professionals and students, and promote the online format as resource for capacity building of environmental education professionals.

In 2004, Sarah Wilcox administered a six month follow-up survey in her evaluation of the Fundamentals of EE course. The post-course evaluation was a valuable tool in determining whether the participants were applying the skills and knowledge gained from the FEE course in their respective fields (Dillard, 2006). Based on the success and results of Wilcox's follow-up survey of the FEE course, it was determined that a six month post-course survey of course participants would be conducted to determine the medium term outcomes of the AEEPE course.

V. SUMMARY

Effective and consistent evaluation has become an expectation and standard within most sectors of society, including within the education system, state and federal agencies, and in the granting community. Yet there continues to be a lack of widespread program evaluation, research and assessment within the field of EE, as well as a lack of

confidence among professionals in the field in their ability to utilize assessment and evaluation in their programs and lessons (Coyle, 2005; Thompson & Hoffman, 2006; NAAEE, 2002).

Professional development and training in environmental education program evaluation can provide environmental education professionals with the knowledge and training to effectively plan and conduct evaluations of their programs, improve their programs and advance their work within the EE field.   Yet access to professional development opportunities in the field of environmental education, especially training in environmental education program evaluation is limited or nonexistent for many professionals.   Distance education professional development and training opportunities, though, can address this limitation and provide environmental education professionals with access to knowledge, skills and training that they would not otherwise be able to access.

An online professional development course in environmental education program evaluation can provide a wide audience of environmental education professionals with the skills and knowledge necessary to conduct effective and relevant evaluations of their EE programs, which may, in turn improve EE professionals' ability to measure and report program outcomes, make improvements to their programs, and ascertain the extent to which the EE programs that they provide are achieving the goals and objectives of environmental education and leading to greater environmental literacy and action.

I.   INTRODUCTION
II.   TIMELINE
III.   PRECOURSE QUESTIONNAIRE
      A. Instrument Development
      B. Subjects
      C. Development
IV.   COURSE EVALUATION
      A. Instrument Development
      B. Subjects
      C. Development
V.   SIX MONTH POST COURSE EVALUATION
      A. Instrument Development
      B. Subjects
      C. Development
      D. Coding of Open-Ended Response Data
VI.   ONE YEAR POST CURSE EVALUATION
      A. Instrument Development
      B. Subjects
      C. Development
      D. Coding of Open-Ended Response Data

I.   INTRODUCTION

The purpose of this study is to determine the extent to which participants in

the online course entitled "Applied Environmental Education Program Evaluation,"

are implementing the program evaluation plans they develop during the course and

the impact of the evaluation on their programs. The Applied Environmental

Education Program Evaluation (AEEPE) course is designed to help environmental

education professionals and educators evaluate their education programs. As a

component of the course, participants develop an evaluation plan and evaluation tools

to evaluate a specific program.

This evaluation employed participant questionnaires to determine the extent to which the participants in the AEEPE course implemented the evaluation plans, created during the AEEPE course, to evaluate their programs after completing the course.

II.   TIMELINE

	Spring 2006	**Summer 2006**	**Fall 2006**
Course Dates	February 20 - May 12 2006	June 12 – August 25 2006	Sept 18 – Dec 1 2006
Pre-Course Questionnaire administered	February 20 – 26 2006	June 12 – 18 2006	September 18 – 24 2006
Course Evaluation	May 10 – 13 2006	August 23 – 26 2006	Nov 29 – Dec 2 2006
Six Month Post-Course Questionnaire administered by email	October 30 2006	February 5 2007	May 14 2007
Follow-up email and 2nd round Six Month Post-Course Questionnaire sent out	November 13 2006	February 19 2007	May 28 2007
Follow-up letter and 3rd round Six Month Post-Course Questionnaire emailed	November 27 2006	March 5 2007	June 11 2007
One Year Post Course Questionnaire	May 14 2007	NA	NA

The study was conducted over the period of the spring, summer and fall course offerings of the AEEPE course, beginning in March 2006 and ending in May 2007. The pre-course questionnaire was administered during the initial week of each course offering. The course evaluation was administered during the final week of each course offering. The six month post-course questionnaire was administered six months (24 weeks) after the completion of each course offering and the one year post course questionnaire was administered one year after the completion of the spring 2006 course. The one year post course evaluation was only administered to the participants in the spring 2006 course.

III.   PRECOURSE QUESTIONNAIRE

Each participant was required to complete a pre-course questionnaire as one of their assignments during the introductory unit of the course. While the pre-course questionnaire was an official assignment for the course, it was voluntary for the participants to complete the questionnaire and the assignment will not be graded. The pre-course questionnaire was used to gather demographic data about the course participants and to inform the post course evaluation.

A.   Instrument Development

The pre-course questionnaire consisted of 15 questions (Appendix A). The first six questions collected data about the participants' historical experience with EE program evaluation. The last nine questions collected data about the participant's level of confidence with the aspects of EE program evaluation. In addition to the

questions, the participants were asked to enter demographic information, including their name, agency or organization, position, and time in current position.

The first six questions were primarily intended to gather data that would inform the post-course questionnaire. Four of the questions collected data on the participants' history with EE program evaluation and two of the questions evaluated the participants' motivation for taking the AEEPE course. Two of the questions were open ended responses; four of the questions were multiple option multiple choice responses, with follow-up open ended questions; and one of the questions was a 'yes' or 'no' response option with two follow-up open ended questions.

The second portion of the pre-course questionnaire, questions 7-15, contained Likert scale questions that measured the participants' confidence with aspects of program evaluation, including their ability to develop and use an evaluation plan and evaluation tools, and their ability to use the data collected from an evaluation.

The questionnaire was developed using a pre-existing pre-course questionnaire that was used during previous offerings of the AEEPE course. The original pre-course questionnaire was used during the development and evaluation stage of the AEEPE course. It was originally designed to inform the AEEPE course instructors about the demographic makeup of the course participants, as well as their experience and confidence with EE program evaluation. Questions that collected data that was no longer needed by either the researcher or the course instructors was eliminated from the new version of the questionnaire; questions that collected data that continued to be useful to the course instructors were left in; six new questions,

with follow-up questions, were developed and added to the questionnaire to inform this study.

The six new questions and the nine previous questions that were not eliminated from the questionnaire were reviewed and approved by a validity panel that evaluated each item for structure, organization, clarity and appropriateness. The validity panel for the pre-course questionnaire included:

- Dr. Richard Wilke, UW System Distinguished Professor of Environmental Education

- Dr. Lyn Fleming, AEEPE Instructor and Evaluation Specialist

- Janice Easton, AEEPE Instructor and Evaluation Specialist

- Georgia Jeppesen, Education Specialist, Division of Education Outreach, USFWS - National Conservation Training Center

- Jennifer Dillard, Research Specialist, UW-SP

The questionnaire was developed in a web based format using Microsoft FrontPage 2000. For each question on the form, the responder either selected an option or typed their response into a data entry field. Each data entry field collected the data in a comma delineated format. For those questions that ask the participants to select an option, the form contained drop down boxes from which the participants could select one or more options. For those questions that ask for open ended responses, the form contained text boxes that collected the data typed into the box. Upon completion of the questionnaire, the respondents were guided to click on the "submit button" at the end of the form. Upon submission of the questionnaire, the

data collected in the form was both sent as an email document to the researcher and entered into an excel spreadsheet. The web based form was tested by the researcher multiple times for accuracy and the ability to obtain the desired data.

B.   Subjects

The pre-course questionnaires was administered to the participants in the spring 2006, summer 2006, and fall 2006 offerings of the AEEPE course.

The participants enrolled in the AEEPE course are separated into three categories: (1) undergraduate participants taking the course for credit, (2) graduate participants taking the course for credit, and (3) workshop participants that receive no college credit for the course. With the online format of the course, the course participants was able to complete the course remotely from throughout the United States and the world.

C.   Data Collection

The pre-course questionnaire was distributed to the course participants as an assignment in the introductory unit of the AEEPE course. In the first week of the course, the participants were asked to complete three tasks. One of the tasks was the completion and submission of the pre-course questionnaire. The questionnaire was accessed by the participants through a web page link within the text of the assignment page of the introductory unit of the course. Upon submission of the questionnaire, an email containing the data collected by the questionnaire was sent to the email inbox of the researcher. All submissions were collected and recorded. Any participants that

did not submit a questionnaire during the first week received an email on the Monday

of the second week reminding them to complete the questionnaire. To increase the

response rate, the follow-up reminder email contained a direct link to the

questionnaire.

IV.   COURSE EVALUATION

Each participant was required to complete a course evaluation as one of their

final assignments for the AEEPE course. Only those participants that successfully

complete the course were asked to complete the evaluation, although participants that

did not pass the course could also complete the evaluation. While the course

evaluation was an official assignment for the course, it was voluntary for the

participants to complete the evaluation and the assignment was not be graded. The

primary purpose of the course evaluation was to gather summative data on the

strengths and weaknesses of the course and the course instructor(s) and for EETAP

reporting to the EPA. The course evaluation is a standard component of every course

offering. For the purpose of this study, the course evaluation was used to gather short

term summative data about the course participants and to inform the six month and

one year post course evaluations.

A.   Instrument Development

The course evaluation was created during the development and evaluation

stage of the AEEPE course. It was designed to inform Dillard's evaluation of the fall

2004, spring 2005, summer 2005, and fall 2005 AEEPE courses. The questionnaire

was employed to evaluate whether the course was delivered effectively. After the fall

2005 AEEPE course, the evaluation was modified to gather only the data required by

the EETAP EPA reports and to inform the course instructors.

The course evaluation originally consisted of 66 Likert scale and short answer

items. The revised course evaluation, which was administered to the participants in

the spring, summer and fall 2006 AEEPE courses was reduced to 25 questions. Some

questions that did not exist in the original version of the course evaluation were added

under the direction of Dr. Michaela Zint, Associate Professor of Environmental

Education & Communication at the University of Michigan and lead evaluator for the

EETAP project, and Dr. Richard Wilke.

B.   Subjects

The course evaluation was administered to the participants in the spring 2006,

summer 2006, and fall 2006 offerings of the AEEPE course.

C.   Data Collection

The course evaluation was distributed to the course participants as an

assignment during the last week of the AEEPE course. The questionnaire was

accessed by the participants through a web page link within the text of the course.

Upon submission of the questionnaire, an email containing the data collected by the

questionnaire was sent to the email inbox of the researcher. All submissions were

collected and recorded. Any participants that did not submit an evaluation received

an email following week reminding them to complete the questionnaire. To increase

the response rate, the follow-up reminder email contained a direct link to the evaluation.

V.   SIX MONTH POST COURSE QUESTIONNAIRE

Six months (24 weeks) after the completion of each course, a cover letter and link to the online post course questionnaire was emailed to each participant that successfully completed the course. The participants were asked to complete the questionnaire and submit their answers online. The questionnaire was used to determine whether the participants evaluated a program after completing the AEEPE course; the extent to which course participants implemented the evaluations; challenges the participants encountered when implementing their evaluation plans; challenges the participants encountered when implementing the changes to their programs resulting from the data collected by the evaluation; the extent to which the AEEPE course provided the participants with the knowledge and skills needed to conduct the program evaluations; and to determine why some participants did not conduct an evaluation of their program after finishing the online course.

A.   Instrument Development

The six month post course participant questionnaire consisted of 35 questions and two sections (Appendix C). The first question was a yes or no question, which asked whether the participants had evaluated a program within the six month period since they had completed the AEEPE course. If the participants responded in the affirmative they were guided to complete questions 2 – 35; if the participant

responded in the negative, they were guided to only complete questions 30-35 in Section II.

Of the 35 questions contained within the questionnaire, seven of the questions evaluated if and how the participants implemented an evaluation plan for their programs; six of the questions identified how they developed and implemented their evaluative tool; two of the questions identified the extent to which the participant included others in the evaluation development and process; three of the questions evaluated the motivations the participants had for evaluating their programs; four of the questions evaluate the extent to which the participant made changes or improvements to their program as a result of their evaluation and the resulting benefits and outcomes as a result; three of the questions identified what barriers the participants encountered in the evaluation process and the extent to which they were able to overcome them; two of the questions evaluated the participants confidence level in their knowledge and skills in program evaluation six months after completing the course; six of the questions evaluated the extent to which the participants transferred knowledge and skills learned in the AEEPE course to others.

Of the 35 questions that were asked, ten questions provided yes or no options for response; three questions used Likert scale options for response; seven questions required open-ended responses; fourteen questions used multiple choice option responses, with a space for an explanation for 'other' selections; and one question used single selection multiple choice response options.

The questionnaire was developed by the researcher using the assessment tool development process outlined in the AEEPE course. The questionnaire was reviewed

by 25 participants participating in the spring 2006 AEEPE course, as well as by the instructor, Dr. Lyn Fleming. A validity panel reviewed the questionnaire and evaluated each item for structure, organization, clarity and appropriateness. The stakeholders in the AEEPE course, who reviewed the questionnaire for content and organization included:

- Dr. Richard Wilke, UW System Distinguished Professor of Environmental Education

- Dr. Lyn Fleming, AEEPE Instructor and Evaluation Specialist

- Janice Easton, AEEPE Instructor and Evaluation Specialist

- Georgia Jeppesen, Education Specialist, Division of Education Outreach, USFWS - National Conservation Training Center

- Jennifer Dillard, Research Specialist, UW-SP

The questionnaire was submitted to the UW-SP Institutional Review Board (IRB) for the Protection of Human Subjects for review and approval. The UWSP requires the submission of a complete protocol of any study to the IRB for approval before the initiation of any study involving human subjects or human materials. IRB approval was provided.

The questionnaire was developed in a web based format using Microsoft FrontPage 2000. For each question on the form, the responder either selected an option or typed their response into a data entry field. Each data entry field collected the data in a comma delineated format. For those questions that asked for only one option, the form contained option buttons that allowed only one option to be selected. For those questions that asked for one or more options, the form contained

45

checkboxes that allowed the responder to select more than one option. For those

questions that asked for open ended responses, the form contained text boxes that

collected the data typed into the box. Upon completion of the questionnaire, the

respondents were guided to click on the "submit button" at the end of the form. Upon

submission of the questionnaire, the data collected in the form was sent as an email

document to the researcher and entered into an excel spreadsheet. The web based

form was tested for accuracy and the ability to obtain the desired data.

B. Subjects

The six month post course questionnaire was administered to the participants

in the spring 2006, summer 2006, and fall 2006 offerings of the AEEPE course. Only

participants that successfully completed the AEEPE course were requested to

complete the questionnaire.

Those participants enrolled in the AEEPE course are separated into three

categories: (1) undergraduate participants taking the course for credit, (2) graduate

participants taking the course for credit, and (3) workshop participants that receive no

college credit for the course. With the online format of the course, the course

participants are able to complete the course remotely from throughout the United

States and the world.

C. Data Collection

The questionnaire was sent to the course participants via email six months (24

weeks) after they successfully completed the AEEPE course. Contained within the

email was a link to the web site containing the questionnaire. Participation in the survey was voluntary.

To increase the response rate to the questionnaire, an introductory letter was posted in the news section of the AEEPE course during the last month of each course offering (Appendix C). The notice introduces the participants to the study and informed them that they would be asked to complete the questionnaire six months after completing the course.

Six months after the end of each offering of the AEEPE course, an email was sent to each course participant that completed the course. The email contained an introductory letter (Appendix C), explaining the purpose of the questionnaire, the goals of the study, directions for completing the questionnaire, a due date, information about who to contact if they have any questions or problems and a thank you for their assistance and contribution. Also contained within the questionnaire was a link to the web posted questionnaire. The participants were able to click on the link and immediately fill out the questionnaire and submit it online.

The results from each questionnaire were collected and recorded. Any participant that did not submit a response received a follow-up reminder email two weeks after the first email was sent out. This email also contained a direct link to the six month post-course questionnaire.   Any remaining non-respondents received a third email that contained the questionnaire four weeks after the fist email was sent out. This email was sent to the non-responders directly from their respective course instructors, instead of from the researcher.

All data collected by the questionnaire form was automatically entered into an excel file and sent as a summary in an email to the researcher at the time that the participants submitted their responses.

D.   Coding of Open-Ended Response Data

There were three open-ended questions asked in the six month post course questionnaire. The responses to these questions were coded into categories and a frequency of response was determined for each category in the results. To code the responses, each response was reviewed and assigned a word or set of words that were representative of the response. The coded responses were then reviewed for similarities and were then grouped into categories based on the identified themes of the responses. Because the responses reflected tangible actions that were taken or strategies that were identified, the responses did not generally include emotional or philosophical statements that could have been open to more than one interpretation. As a result, the categories for reach response were assigned by the researcher alone.

VI.   ONE YEAR POST COURSE QUESTIONNAIRE

One year after the completion of the spring 2006 AEEPE course, a cover letter and link to one of two versions of an online one year post course questionnaire was emailed to each participant that successfully completed the spring 2006 course. The participants were asked to complete their respective questionnaires and submit their answers online. The questionnaires were used to determine whether the participants

that did not begin the evaluation process within six months of completing the course began or completed the process within one year and whether participants that indicated that they had begun or completed the evaluation process within the first six months of completing the course, continued to evaluate their program during the following six months. These evaluations, like the six month post course questionnaire, also aimed to determine the extent to which course participants implemented their evaluations; challenges the participants encountered when implementing their evaluation plans; challenges the participants encountered when implementing the changes to their programs resulting from the data collected by the evaluation; the extent to which the AEEPE course provided the participants with the knowledge and skills needed to conduct the program evaluations; and to determine why some participants did not conduct an evaluation of their program after finishing the online course.

A.   Instrument Development

Two versions of the one year post course participant questionnaire were created. The two versions of the evaluation used only questions that were extracted from the six month post course questionnaire to avoid discrepancies.

The first version of the one year post course questionnaire (Appendix D) was developed to be administered to those respondents that had not yet begun the evaluation process during the first six months following the completion of the AEEPE course. Five questions were eliminated from the original six month post course questionnaire to create version A of the one year post course questionnaire.   The five

questions that were removed were the questions that all respondents were asked to complete in the six month post course questionnaire, regardless of whether they had started the evaluation process.

The second version of the one year post course questionnaire (Appendix E) was developed to be administered to those respondents that indicated that they had begun the evaluation process during the first six months after completing the AEEPE course. Version B of the questionnaire consisted of 20 questions that were extracted from the six month post course questionnaire. The 15 questions that were eliminated from version B of the questionnaire were questions that would have been answered by all of the respondents that indicated that they had begun the evaluation process within six months of completing the course and which did not consist of variables that could change within the additional six month time period following the first post course questionnaire.

The questionnaire was developed by the researcher using the assessment tool development process outlined in the AEEPE course. Since the two versions of the post course questionnaire only employed existing questions from the six month post course questionnaire the validity and reliability review of the six month questionnaire was applied to the one year post course questionnaire. The stakeholders in the AEEPE course, who reviewed the questionnaire for content and organization included:

- Dr. Richard Wilke, UW System Distinguished Professor of Environmental Education

- Dr. Lyn Fleming, AEEPE Instructor and Evaluation Specialist

- Janice Easton, AEEPE Instructor and Evaluation Specialist

The questionnaire was developed in a web based format using Microsoft

FrontPage 2000. For each question on the form, the responder either selected an

option or typed their response into a data entry field. Each data entry field collected

the data in a comma delineated format. For those questions that asked for only one

option, the form contained option buttons that allowed only one option to be selected.

For those questions that asked for one or more option, the form contained checkboxes

that allowed the responder to select more than one option. For those questions that

asked for open ended responses, the form contained text boxes that collected the data

typed into the box. Upon completion of the questionnaire, the respondents were

guided to click on the "submit button" at the end of the form. Upon submission of the

questionnaire, the data collected in the form was sent as an email document to the

researcher and entered into an excel spreadsheet. The web based form was tested for

accuracy and the ability to obtain the desired data.

B.   Subjects

The post course questionnaire was administered to only the participants of the

spring 2006 offering of the AEEPE course. Only participants that successfully

completed both the AEEPE course and the six month post course questionnaire were

requested to complete the one year post course questionnaire.

C.   Data Collection

The questionnaire was sent to the course participants via email one year after

their successful completion of the AEEPE course. The email contained an

introductory letter (Appendix D), explaining the purpose of the questionnaire, the

goals of the study, directions for completing the questionnaire, a due date,

information about who to contact if they had any questions or problems and a thank

you for their assistance and contribution. Also contained within the questionnaire

was a link to the web posted questionnaire. The participants were able to click on the

link and immediately fill out the questionnaire and submit it online. Participation in

the survey was voluntary.

The results from each questionnaire were collected and recorded. Any

participant that did not submit a response received a follow-up reminder email two

weeks after the first email was sent out. This email also contained a direct link to the

appropriate version of the one year post-course questionnaire.   All data collected by

the questionnaire form was automatically entered into an excel file and sent as a

summary in an email to the researcher at the time the participants submitted their

responses.

D.   Coding of Open-Ended Response Data

There were three open-ended questions asked in both of the versions of one

year post course questionnaire. The responses to these questions were coded into

categories and a frequency of response was determined for each category in the

results. To code the responses, each response was reviewed and assigned a word or

set of words that were representative of the response. The coded responses were then

reviewed for similarities and were then grouped into categories based in the identified

themes of the responses. Because the responses reflected tangible actions that were

taken or strategies that were identified, the responses did not generally include

emotional or philosophical statements that could have been open to more than one

interpretation. As a result, the categories for reach response were assigned by the

researcher alone.

CHAPTER FOUR
RESULTS

I. **DATA COLLECTION**
   A. Spring 2006
   B. Summer 2006
   C. Fall 2006
   D. Compiled
II. **OBJECTIVE 0NE AND HYPTHESIS**
   A. Spring 2006 Results
   B. Summer 2006 Results
   C. Fall 2006 Results
   D. Compiled Results (Spring, Summer and Fall 2006)
III. **OBJECTIVE TWO**
   A. Spring 2006 Results
   B. Summer 2006 Results
   C. Fall 2006 Results
   D. Compiled Results (Spring, Summer and Fall 2006)
IV. **OBJECTIVE THREE**
   A. Spring 2006 Results
   B. Summer 2006 Results
   C. Fall 2006 Results
   D. Compiled Results (Spring, Summer and Fall 2006)
V. **OBJECTIVE FOUR**
   A. Spring 2006 Results
   B. Summer 2006 Results
   C. Fall 2006 Results
   D. Compiled Results (Spring, Summer and Fall 2006)
VI. **OBJECTIVE FIVE**
   A. Spring 2006 Results
   B. Summer 2006 Results
   C. Fall 2006 Results
   D. Compiled Results (Spring, Summer and Fall 2006)
VII. **OBJECTIVE SIX**
   A. Compiled Results (Spring, Summer and Fall 2006)
VIII. **OBJECTIVE SEVEN**
   A. Spring 2006 Results
   B. Summer 2006 Results
   C. Fall 2006 Results
   D. Compiled Results (Spring, Summer and Fall 2006)
IX. **OBJECTIVE EIGHT**

The purpose of this study was to determine the extent to which participants in the online course entitled "Applied Environmental Education Program Evaluation," implemented the program evaluation plans they developed during the course and the impact of the evaluations on their programs. To achieve this goal, eight objectives were identified for this research. This chapter will examine the results corresponding to each of the eight objectives and the hypothesis for this study.

I.   DATA COLLECTION

This chapter presents the results of three post course participant questionnaires that were administered to course participants in the spring 2006, summer 2006, and fall 2006 AEEPE courses six months after they completed the course and one post course participant questionnaire that was administered to participants in the spring 2006 AEEPE course one year after they completed the course. The results also include data gathered from three pre-course participant questionnaires and three summative course evaluations that were administered to participants in the spring, summer, and fall 2006 AEEPE courses during the first week and last week of the course. The pre-course participant questionnaire was administered to the course participants each semester during the first week of the AEEPE course to gather data for the course instructors and administrators about the participants' evaluation experience before beginning the course. The summative course evaluation was administered to the course participants during the final week of the AEEPE course to gather data for the course instructors and administrators to determine the success of the course.

The pre-course questionnaire and summative course evaluation were administered as online questionnaires within the online course platform, Desire2Learn. The two post course questionnaires were administered as online questionnaires through web links embedded in emails sent to course participants six months and one year after they completed the AEEPE course.

The pre-course questionnaire was employed to gather demographic information about the course participants and data on the participants experience with program evaluation prior to beginning the AEEPE course. For the purpose of this research, only six pieces of data were pulled from the data set: the participants' primary reason for enrolling in the AEEPE course, the participants' motivations for learning about environmental education program evaluation, the participants' experience with program evaluation prior to beginning the course, and the barriers that the participants' encountered before completing the course that limited their ability to evaluate an environmental education program.

The summative course evaluation was administered to the course participants that successfully completed the AEEPE course during the final week of the course. The primary purpose of the course evaluation was to provide the course instructors and administrators with feedback on the success of the course. For the purpose of this research, only four pieces of data were pulled from the data set: the participants' positions at the time that they finished the course, the participants' experiences with program evaluation prior to beginning the course, the participants' perceived increase in program evaluation knowledge at the time that they completed the course, and the

56

participants perceived increase in program evaluation skills at the time they completed the course.

The six month post course questionnaire was administered to course participants that successfully completed the AEEPE course six months after the end of the course. This questionnaire was employed to determine if the participants that successfully completed the AEEPE course utilized the evaluation plans that they developed during the course to evaluate an environmental education program within six months of completing the course.

Results from the six month post course questionnaire that was administered to participants in the spring 2006 course determined that the primary reason the participants identified for not starting or completing an evaluation within the first six months of completing the AEEPE course was a lack of sufficient time, with a 69% response rate. As a result, a second post course questionnaire was administered to the spring 2006 participants one year after they had completed the AEEPE course. This evaluation was employed to determine if participants that did not evaluate their programs within six months of completing the course would begin or complete an evaluation of their program within the extended time period of one year.

A.   Spring 2006

In the spring 2006 semester 73 participants enrolled in the AEEPE course through UW-SP. Sixty-nine of the 73 participants enrolled in the course completed the pre-course questionnaire during the first week of the course. Thirty-nine of the course participants that completed the pre-course questionnaire completed the six month post course

questionnaire. This research will only examine the results of the pre-course questionnaire data from the 39 course participants that completed both the pre-course questionnaire and the six month post course questionnaire. Only one course participant that completed the six month post course questionnaire did not complete the pre-course questionnaire.

Fifty-one of the 73 participants enrolled in the course successfully completed the course. Eleven students dropped the course, nine students did not receive a passing grade, and two students received incompletes for the course. The attrition rate for the spring 2006 course was calculated as 30%. Forty-six of the fifty-one course participants that successfully completed the course completed a course evaluation during the final week of the course. One student could not be included in the research results due to direct involvement with the research. Of the 46 course participants that submitted a course evaluation, 36 also completed a six month post course questionnaire. This research will only examine the results of the course evaluation data from the 36 course participants that completed both the course evaluation and the six month post course questionnaire. Four course participants that completed the six month post course questionnaire did not complete the course evaluation.

Six months after the end of the AEEPE course, the researcher attempted to contact fifty of the 51 students that had successfully completed the course. One student could not be included in the research results due to direct involvement with the research. Of the 50 students that the researcher attempted to contact, 40 completed the questionnaire. Of the ten course participants that did not submit a questionnaire, eight did not respond to the request or complete a questionnaire and two no longer had valid contact information. The response rate for this questionnaire was calculated as 80% of the fifty students that

the researcher attempted to contact and 83% of the 48 students that had valid contact information after six months.

Results from the six month post course questionnaire determined that the primary reason the participants identified for not starting or completing an evaluation within the first six months of completing the AEEPE course was a lack of sufficient time, with a 69% response rate. As a result it was determined that a second questionnaire should be administered to the respondents after a period of one year to determine if participants that did not evaluate their programs within six months of completing the course would begin or complete an evaluation of their program within the extended time period of one year.

One year after the end of the AEEPE course, the researcher attempted to contact the 40 students that completed the six month post course questionnaire. Of the 40 students that the researcher attempted to contact, 24 completed the questionnaire. Of the 16 course participants that did not submit a questionnaire, 14 did not respond to the request or complete a questionnaire and two no longer had valid contact information. The response rate for this questionnaire was calculated as 60% of the 40 students that the researcher attempted to contact and 63% of the 38 students that had valid contact information after one year.

B.   Summer 2006

In the summer 2006 semester 18 participants enrolled in the AEEPE course through UW-SP. Seventeen of the 18 participants enrolled in the course completed the pre-course questionnaire during the first week of the course. Eight of the course participants that completed the pre-course questionnaire completed the six month post

course questionnaire. This research will only examine the results of the pre-course questionnaire data from the eight course participants that completed both the pre-course questionnaire and the six month post course questionnaire. All of the course participants that completed the six month post course questionnaire completed the pre-course questionnaire.

Ten of the 18 participants enrolled in the course successfully completed the course. Two students dropped the course, three students did not receive a passing grade, and three students received incompletes for the course. The attrition rate for the spring 2006 course was calculated as 44%. All ten of the course participants that successfully completed the course completed a course evaluation during the final week of the course. . Of the 10 course participants that submitted a course evaluation, eight also completed a six month post course questionnaire. This research will only examine the results of the course evaluation data from the eight course participants that completed both the course evaluation and the six month post course questionnaire. All of the course participants that completed the six month post course questionnaire completed the course evaluation.

Six months after the end of the AEEPE course, the researcher attempted to contact the 10 students that had successfully completed the course. Of the 10 students that the researcher attempted to contact, eight completed the questionnaire. The response rate for this questionnaire was calculated as 80%.

C. Fall 2006

In the fall 2006 semester 28 participants enrolled in the AEEPE course through UW-SP. Twenty-seven of the 28 participants enrolled in the course completed the pre-course questionnaire during the first week of the course. Seventeen of the course participants that completed the pre-course questionnaire completed the six month post course questionnaire. This research will only examine the results of the pre-course questionnaire data from the 17 course participants that completed both the pre-course questionnaire and the six month post course questionnaire. All of the course participants that completed the six month post course questionnaire completed the pre-course questionnaire.

Twenty-two of the 28 participants enrolled in the course successfully completed the course. One student dropped the course and five students did not receive a passing grade. The attrition rate for the spring 2006 course was calculated as 21%. All 22 of the course participants that successfully completed the course completed a course evaluation during the final week of the course. Of the 22 course participants that submitted a course evaluation, 17 also completed a six month post course questionnaire. This research will only examine the results of the course evaluation data from the 17 course participants that completed both the course evaluation and the six month post course questionnaire. All of the course participants that completed the six month post course questionnaire completed the course evaluation.

Six months after the end of the AEEPE course, the researcher attempted to contact the 22 students that had successfully completed the course. Of the 22 students that the researcher attempted to contact, 17 completed the questionnaire. Of the five course

participants that did not submit a questionnaire, three did not respond to the request or complete a questionnaire and two no longer had valid contact information. The response rate for this questionnaire was calculated as 77% of the 22 students that the researcher attempted to contact and 85% of the 20 students that had valid contact information after six months.

D. **Compiled (Spring, Summer and Fall 2006)**

One hundred and eighteen participants total enrolled in the spring, summer and fall AEEPE courses. Eighty-one of the 118 participants successfully completed the course. The attrition rate for these three courses, compiled, was 31%. Sixty-five of the 82 participants that successfully completed the spring, summer and fall 2006 AEEPE courses completed the six month post course questionnaire. The compiled response rate for these three courses was 83%.

II. **OBJECTIVE ONE**

The purpose of objective one was to determine the percentage of course participants that implement the program evaluations developed during the course within six months of completing the course. The hypothesis for this study was that at least 80% of the nonformal environmental educators completing the AEEPE course would evaluate their environmental education program and identify strategies for improving it.

To determine what percentage of the course participants implemented the program evaluations developed in the course within six months of completing the course, a simple Yes/No question was asked on the six month post course questionnaire, "Have

you implemented any part of the program evaluation plan that you developed during the

AEEPE course?"

A.   Spring 2006

Figure 1 graphically illustrates the frequency of the spring 2006 student responses

to the Yes/No question, "Have you implemented any part of the program evaluation plan

that you developed during the AEEPE course?"

Figure 1. Frequency of Evaluation within Six Months of Spring 2006 Course
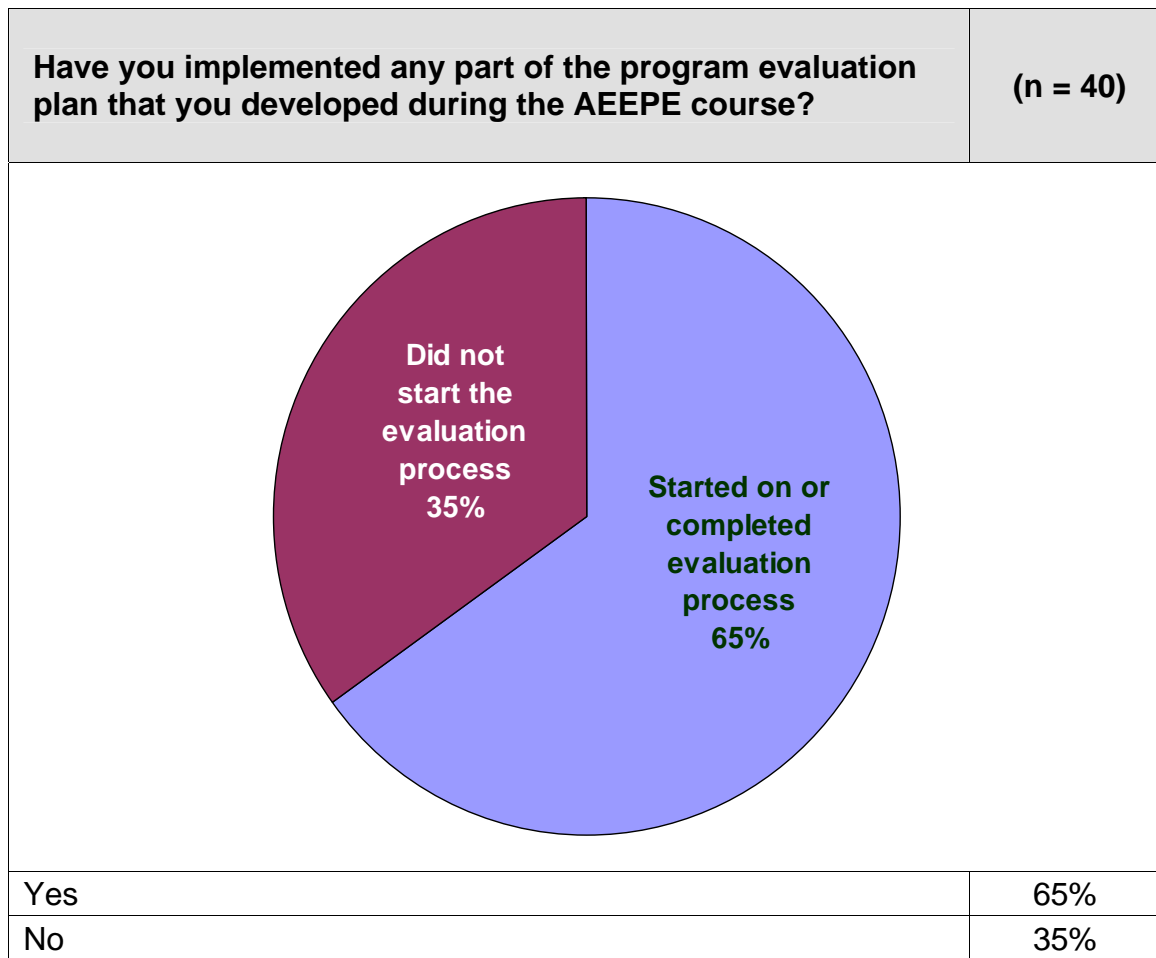
Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?	(n = 40)

Yes	65%
No	35%

This result, however does not consider the variable that some of the respondents were not working in the environmental education field during the six months after they completed the course and did not have a program to evaluate.   Four of the course participants that completed the six month post course questionnaire indicated that they did not have a program to evaluate at the time that they completed the questionnaire. Figure 2 graphically depicts the frequency of student responses to the first item in six month post course questionnaire (Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?) with the respondent number (n) adjusted to only include those students that indicated that they had a program to evaluate at the time that they completed the six month post course questionnaire.

Figure 2. Adjusted Frequency of Evaluation within Six Months of Spring 2006 Course

Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?	(n = 36)
Pie chart: Did not start the evalution process 27%; Started or completed the evaluation process 73%	
Yes	73%
No	27%

The variable, other than not having a program to evaluate, that was most frequently identified by the respondents as the reason that they did not implement their evaluation plan within six months of completing the AEEPE course was the variable of time. As a result, it was determined that a second questionnaire should be administered to the respondents after a period of one year to determine if participants that did not evaluate their programs within six months of completing the course would begin or complete an evaluation of their program within the extended time period of one year.

Twenty –four course participants that completed the six month post course questionnaire also completed the one year post course questionnaire.

Figure 3 graphically illustrates the frequency of the spring 2006 student responses from the one year post course questionnaire to the Yes/No question, "Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?" The pie chart is divided into four categories: Did not start an evaluation; started on or completed an evaluation; continued to evaluate a program; did not continue to evaluate a program. The respondents that indicated that they had not evaluated a program within six months of completing the AEEPE course, but indicated that they did evaluate a program within one year fell under the category: Started on or completed an evaluation. The respondents that had indicated that they had evaluated a program within six months of completing the AEEPE course and also indicated that they had continued to evaluate a program within one year of completing the course fell under the category: Continued to evaluate a program. The respondents that had indicated that they had evaluated a program within six months of completing the AEEPE course, but indicated that they had not continued to evaluate a program within one year of completing the course fell under the category: Did not continue to evaluate a program. The respondents that indicated that they had not evaluated a program within six months of completing the AEEPE course and also indicated that they did not evaluate a program within one year fell under the category: Did not start an evaluation

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Figure 3. Frequency of Evaluation within One Year of Spring 2006 Course

Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?	(n = 24)

Started on or completed an evaluation	13%
Continued to evaluate a program	29%
Did not start an evaluation	25%
Did not continue to evaluate a program	33%

Two of the respondents that indicated that they had not started a program evaluation within six months of completing the course, indicated that they had started or completed and evaluation in the responses to the one year post course questionnaire. Figure 4 graphically depicts the total compiled frequency of student responses to the first item in both the six month post course questionnaire and the one year post course questionnaire (Have you implemented any part of the program evaluation plan that you developed

during the AEEPE course?) with the respondent number (n) adjusted to only include

those students that indicated that they had a program to evaluate at the time that they

completed the six month post course questionnaire and/or one year post course

questionnaire.

Figure 4. Adjusted Frequency of Evaluation within One Year of Spring 2006 Course

Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?	(n = 36)

Did not start the evalution process 22%

Started or completed the evaluation process 78%

Yes	78%
No	22%
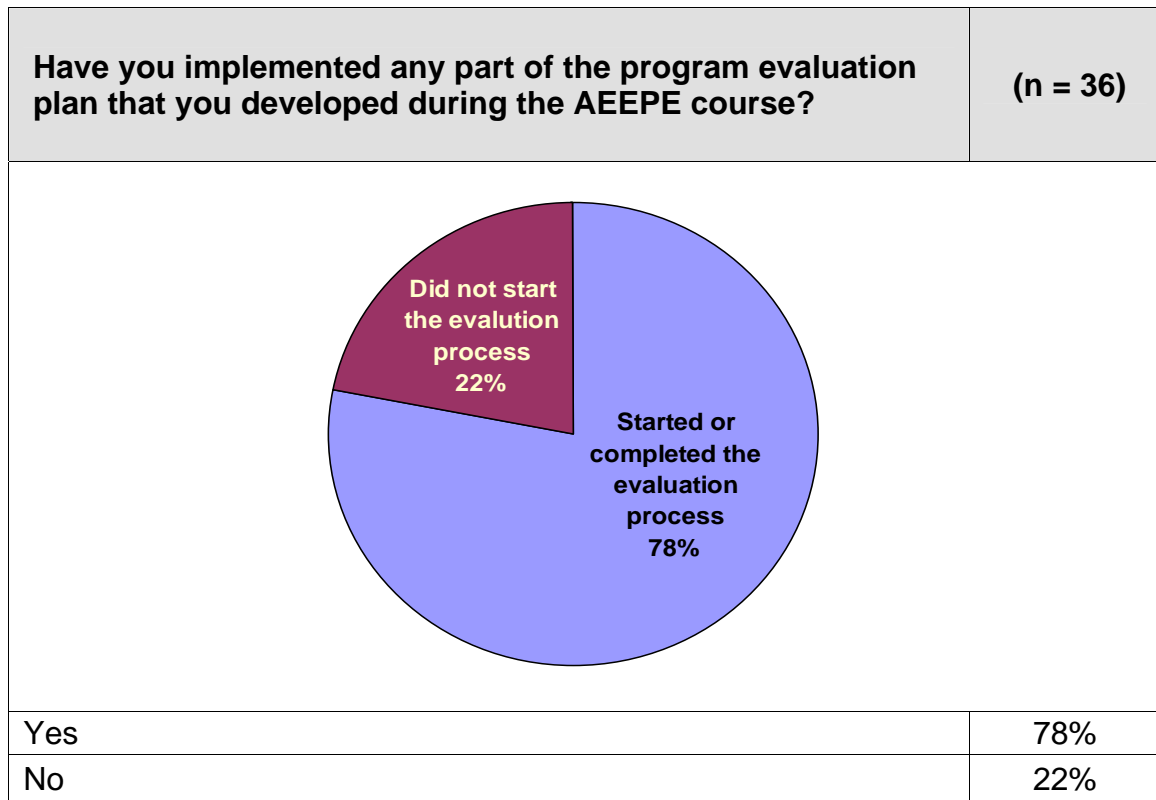
Within one year of completing the AEEPE course, 78% of the course participants

that completed the initial six month post course questionnaire and had a program to

evaluate had indicated that they had started the evaluation process. Because only 24 of

the 40 students that completed the six month post course questionnaire also completed

the one year post course questionnaire, the actual frequency of respondents that evaluated

a program within one year of completing the AEEPE course may be greater.

B.   Summer 2006

Figure 5 graphically illustrates the frequency of the summer 2006 student

responses to the Yes/No question, "Have you implemented any part of the program

evaluation plan that you developed during the AEEPE course?"

. **Figure 5. Frequency of Evaluation within Six Months of Summer 2006 Course**
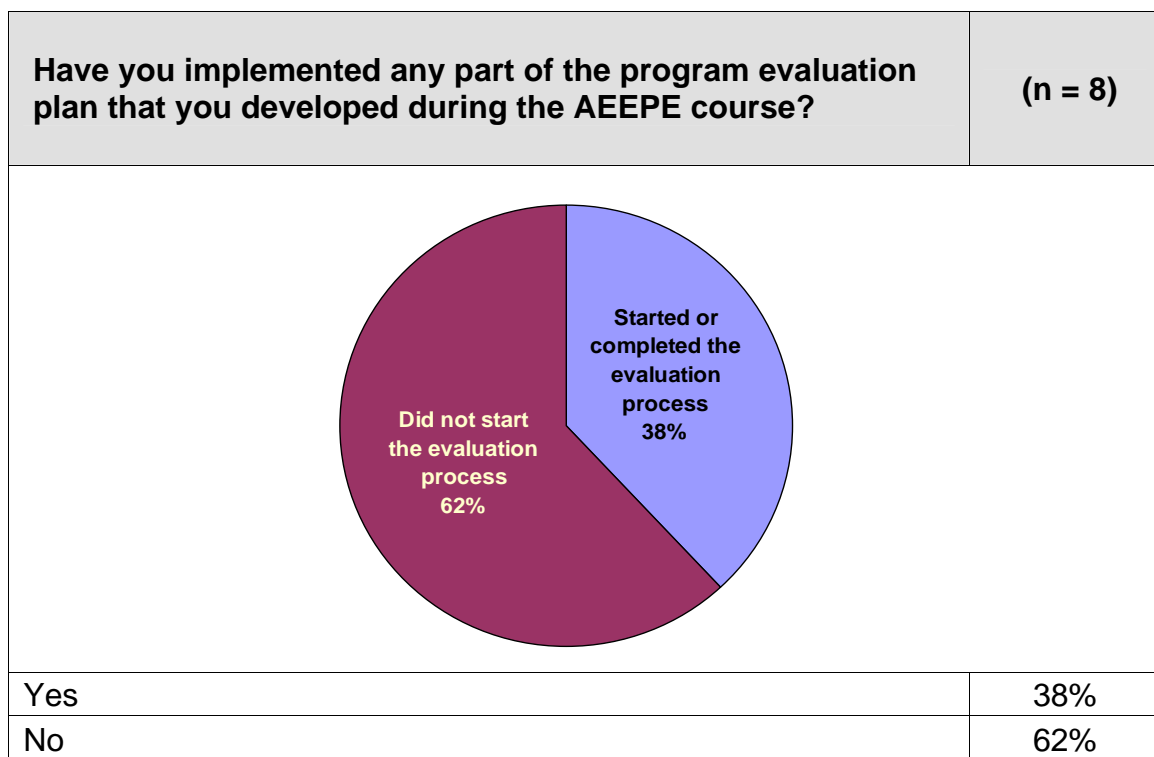
Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?	(n = 8)

Yes	38%
No	62%

This result, however does not consider the variable that some of the respondents

were not working in the environmental education field during the six months after they

completed the course and did not have a program to evaluate.   Three of the course

participants that completed the six month post course questionnaire indicated that they

did not have a program to evaluate at the time that they completed the questionnaire.

Figure 6 graphically depicts the frequency of student responses to the Yes/No

question, "Have you implemented any part of the program evaluation plan that you

developed during the AEEPE course?" with the respondent number (n) adjusted to only

include those students that indicated that they had a program to evaluate at the time that

they completed the six month post course questionnaire.

Figure 6. Adjusted Frequency of Evaluation within Six Months of Summer 1006 Course

Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?	(n = 5)

Did not start the evaluation process 40%

Started or completed the evaluation process 60%

Yes	60%
No	40%
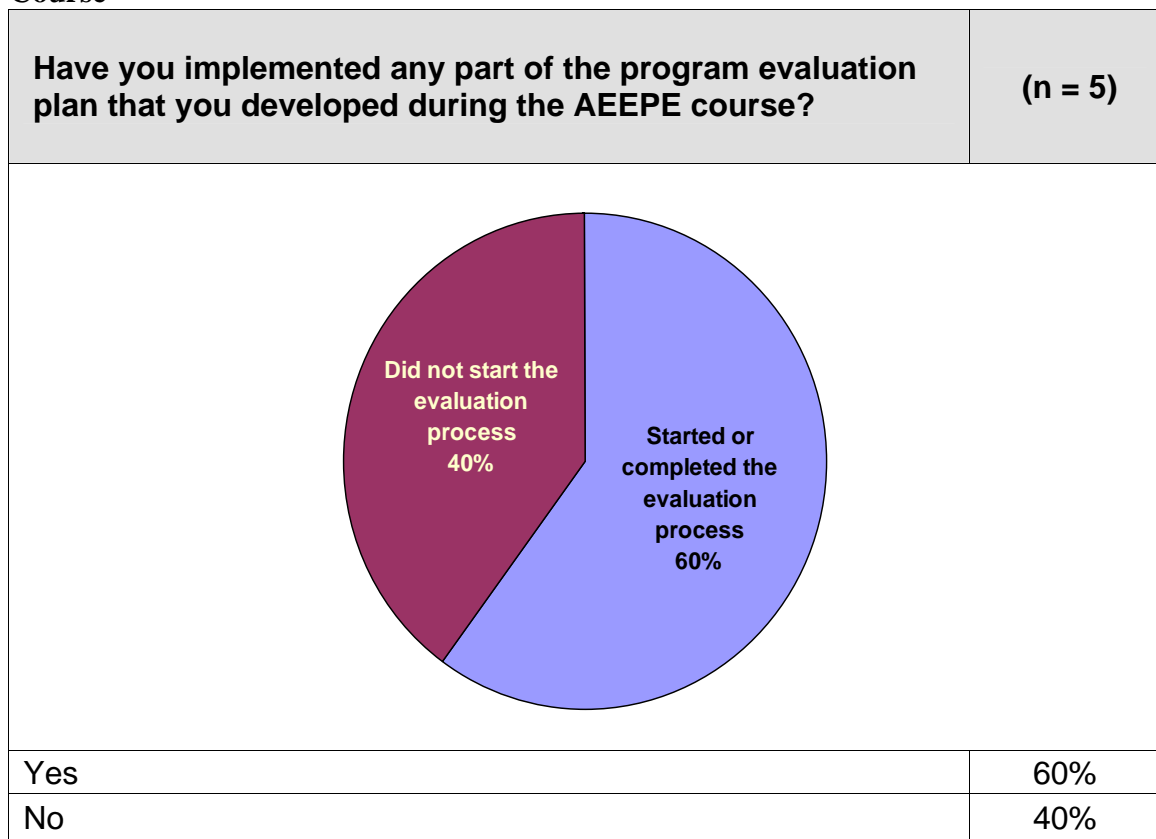
C.   Fall 2006

Figure 7 graphically illustrates the frequency of the fall 2006 student responses to the Yes/No question, "Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?"

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Figure 7. Frequency of Evaluation within Six Months of Fall 2006 Course
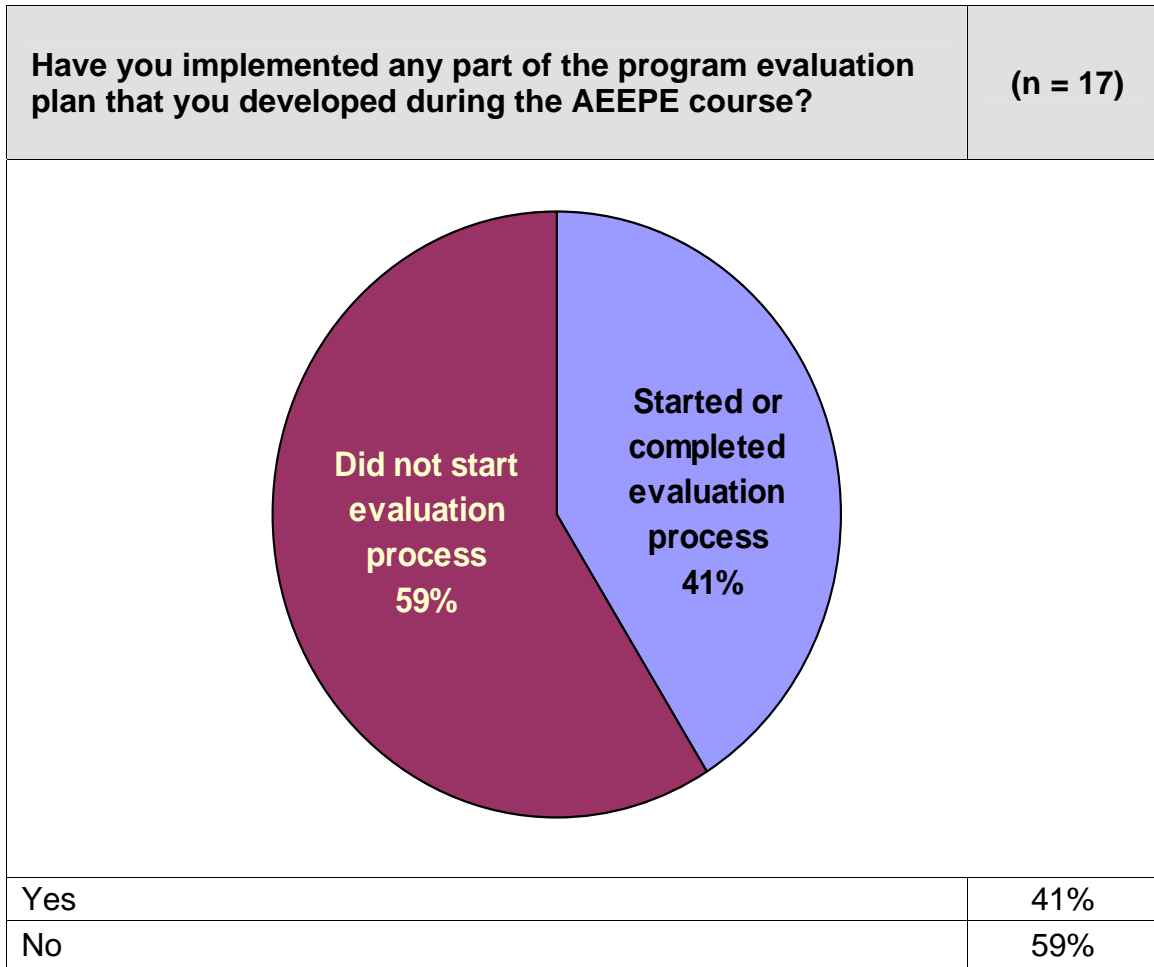
Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?	(n = 17)

Yes	41%
No	59%

This result, however does not consider the variable that some of the respondents were not working in the environmental education field during the six months after they completed the course and did not have a program to evaluate.   One of the course

participants that completed the six month post course questionnaire indicated that they
did not have a program to evaluate at the time that they completed the questionnaire.
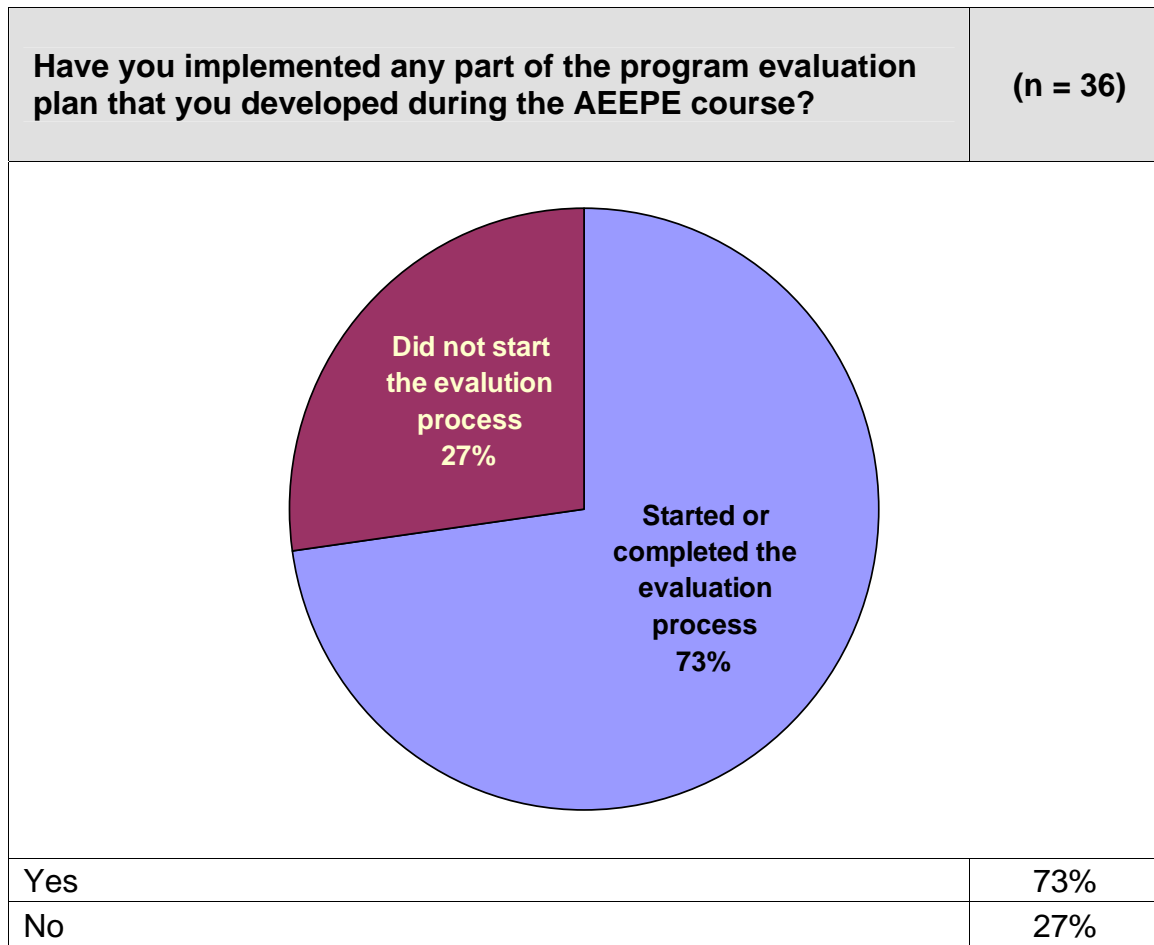
Figure 8 graphically depicts the frequency of student responses to the Yes/No
question, "Have you implemented any part of the program evaluation plan that you
developed during the AEEPE course?" with the respondent number (n) adjusted to only
include those students that indicated that they had a program to evaluate at the time that
they completed the six month post course questionnaire.

Figure 8. Adjusted Frequency of Evaluation within Six Months of Fall 2006 Course

Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?	(n = 16)

Yes	44%
No	56%
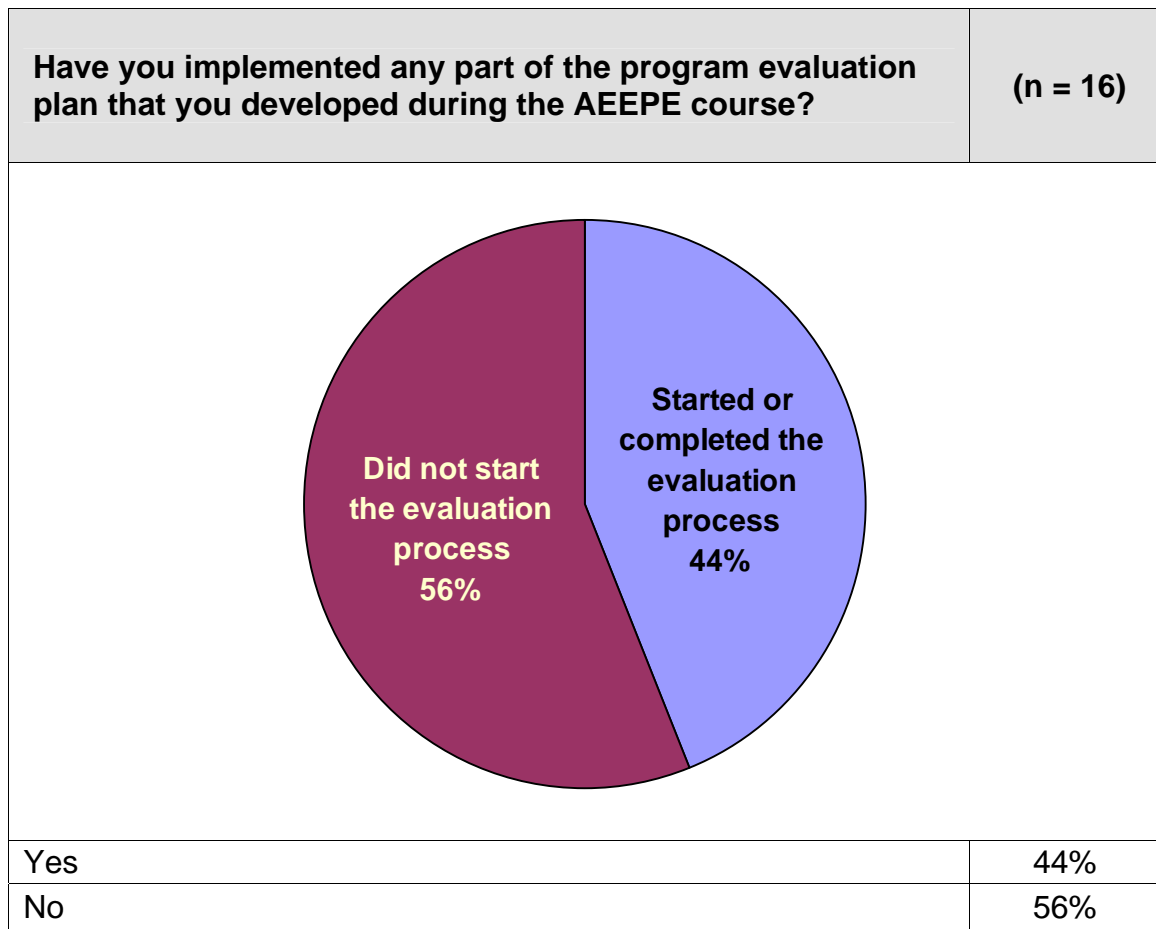
D. Compiled Results

Figure 9 graphically illustrates the frequency of the compiled spring, summer and fall 2006 student responses to the Yes/No question, "Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?"

Figure 9. Compiled Frequency of Evaluation within Six Months
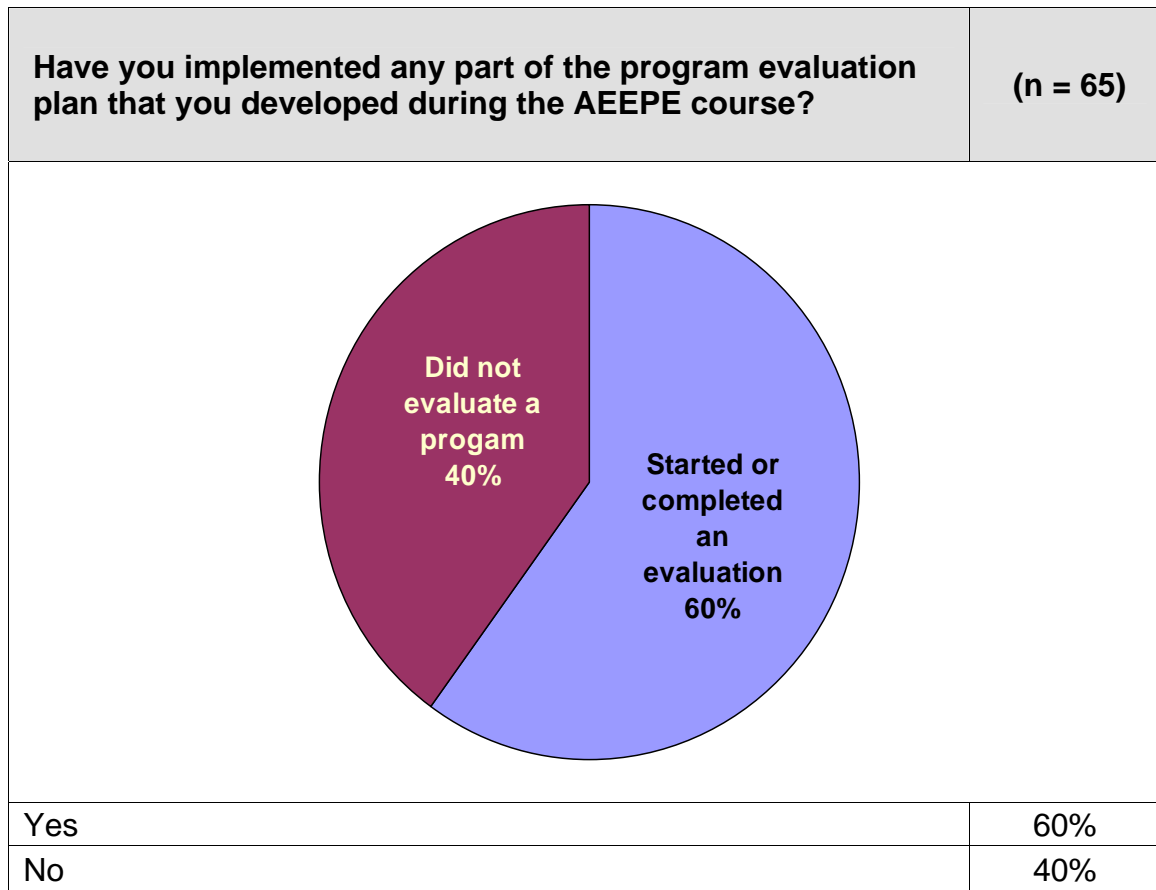
Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?	(n = 65)

Yes	60%
No	40%

This result, however does not consider the variable that some of the respondents were not working in the environmental education field during the six months after they completed the course and did not have a program to evaluate.   Eight of the course

participants that completed the six month post course questionnaire indicated that they did not have a program to evaluate at the time that they completed the questionnaire.

Figure 10 graphically depicts the frequency of student responses to the Yes/No question, "Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?" with the respondent number (n) adjusted to only include those students that indicated that they had a program to evaluate at the time that they completed the six month post course questionnaire.

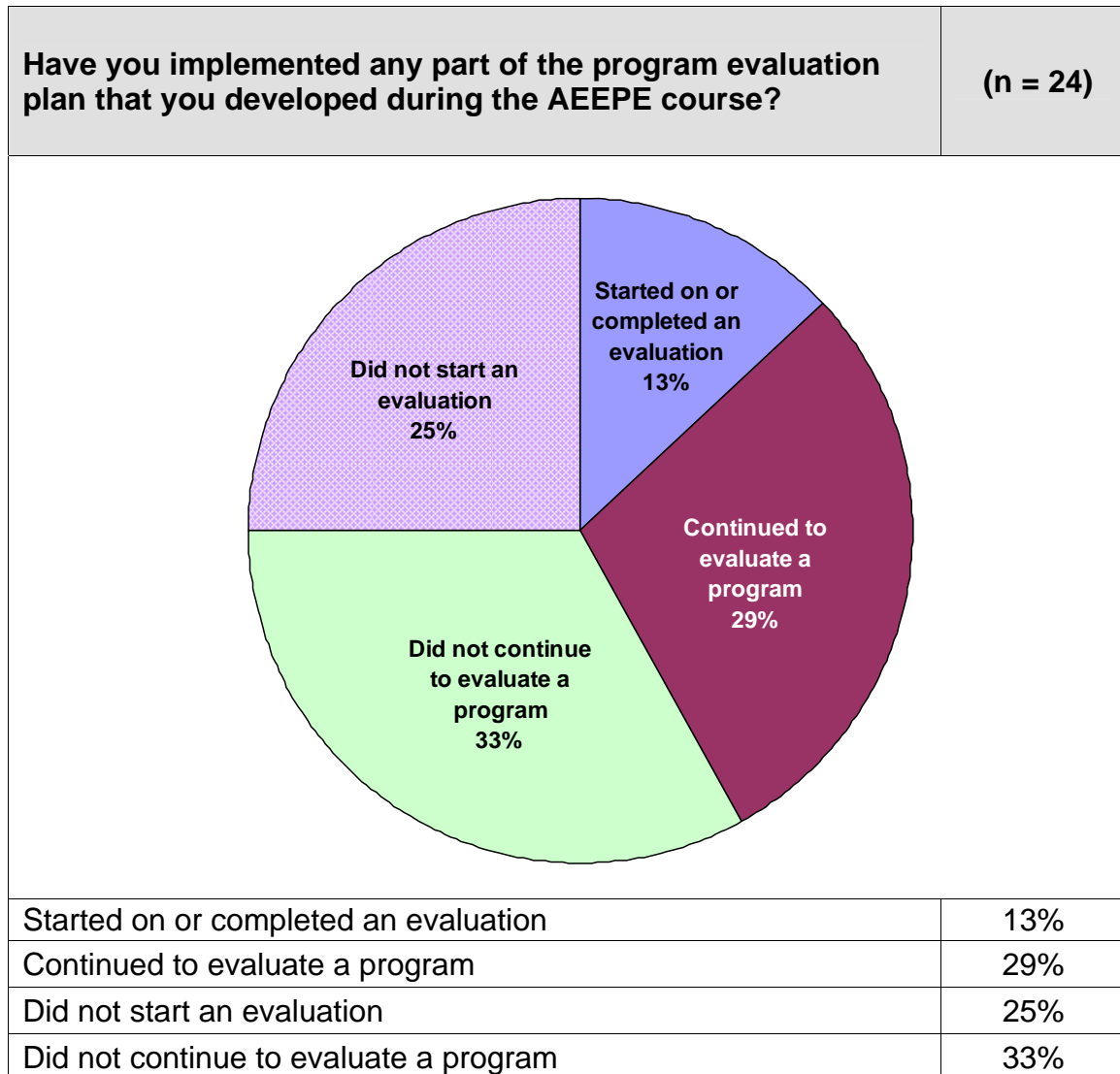**Figure 10. Compiled Adjusted Frequency of Evaluation within Six Months**

Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?	(n = 56)

Pie chart: Did not evaluate a progam 32%; Started or completed an evaluation 68%

Yes	68%
No	32%
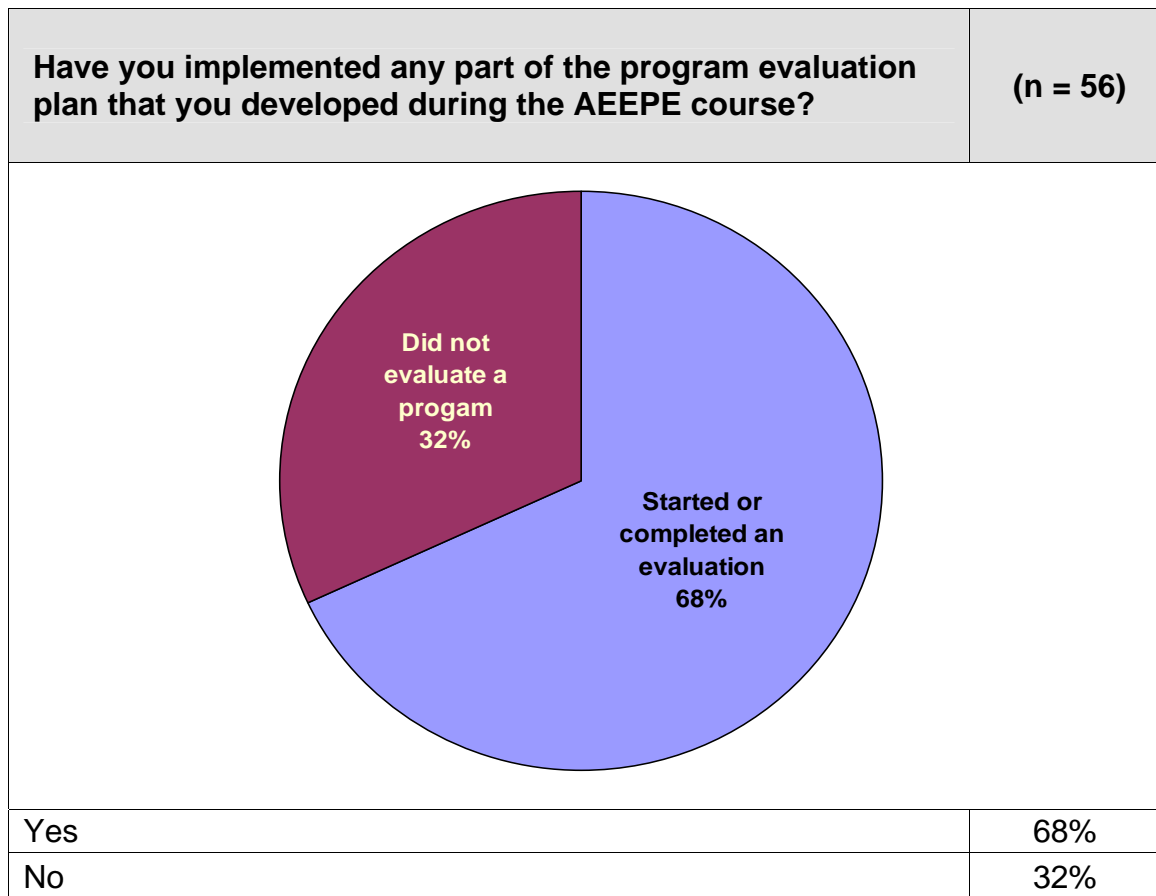
In addition to the six month post course questionnaire, a second one year post course questionnaire was administered to the respondents from the spring 2006 course. Twenty –four course participants from the spring 2006 course that completed the six month post course questionnaire also completed the one year post course questionnaire.

Two of the respondents that indicated that they had not started a program evaluation within six months of completing the course, indicated that they had started or completed and evaluation in the responses to the one year post course questionnaire. Figure 11 graphically depicts the total compiled frequency of student responses to the first item in both the six month post course questionnaire and the one year post course questionnaire (Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?) with the respondent number (n) adjusted to only include those students that indicated that they had a program to evaluate at the time that they completed the six month post course questionnaire and/or one year post course questionnaire.

Figure 11. Compiled Adjusted Frequency of Evaluation within One Year

Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?	(n = 56)

Did not evaluate a progam 29%

Started or completed an evaluation 71%

Yes	71%
No	29%
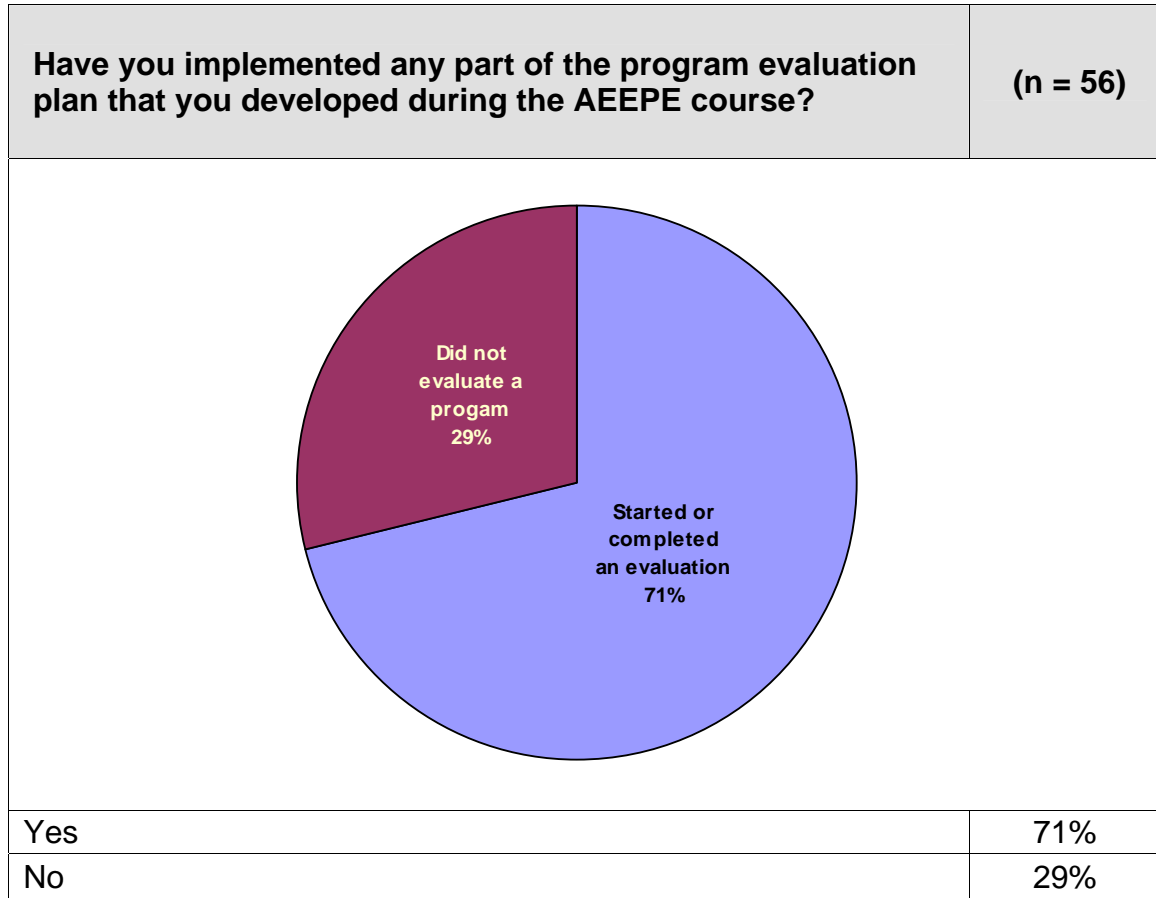
Within one year of completing the AEEPE course, at least 71% of the course participants that completed the initial six month post course questionnaire and had a program to evaluate had indicated that they had started the evaluation process. Because only 24 of the 65 students that completed a six month post course questionnaire also completed a one year post course questionnaire, the actual frequency of respondents that evaluated a program within one year of completing the AEEPE course may be greater.

III.   OBJECTIVE TWO

The purpose of objective two was to determine the extent to which the course participants implemented the program evaluations they developed during the course within six months of completing the course. The hypothesis for this study was that at least 80% of the nonformal environmental educators completing the AEEPE course would evaluate their environmental education program and identify strategies for improving it.

To determine the extent to which the course participants implemented their program evaluations developed during the course within six months of completing the course, five corresponding questions were asked of the respondents who indicated that they had started the evaluation process. The first of the five questions asked, "How have you implemented your program evaluation plan?" There were ten options provided, including "other," from which the participants could select one or more response.   In addition to this question, four additional questions asked the respondents to indicate what they had evaluated; if they had analyzed the data that they collected in their evaluations; if they had identified strategies for improving their programs; and if they had made changes to their programs as a result of their evaluations.

A.   Spring 2006

Because respondents to the spring 2006 six month questionnaire indicated that time was the barrier that they most frequently encountered, it was determined that a second questionnaire should be administered to the spring 2006 respondents after a period of one year to determine if participants that did not evaluate their programs within

six months of completing the course would begin or complete an evaluation of their

program within the extended time period of one year. Twenty –four course participants

that completed the six month post course questionnaire also completed the one year post

course questionnaire. This section presents the results from both the spring 2006 six

month post course questionnaire and the one year post course questionnaire.

Table 1 summarizes the six month results to the multiple choice question, "How

have you implemented your program evaluation plan?" There were ten options provided,

including "other," from which the participants could select one or more response.

Respondents that selected "other" were asked to provide an explanation in a space

provided. The open-ended responses to this item are listed in Appendix F. Respondents

that indicated that they had not begun the evaluation process were not directed to answer

this question. As such, only the 26 respondents, out of the 40 that participated in the

survey, who indicated that they had implemented some part of their evaluation plan were

required to respond to this item. Accordingly, an adjusted respondent number (n) was

calculated for this item. Because more than one response was permitted for this item, the

frequency of response totals more than 100%.

**Table 1. How Spring 2006 Respondents Implemented Evaluation Plan Within Six
Months**

How have you implemented your program evaluation plan?	(n = 26)
I revised the tool(s) that I developed in the AEEPE course to better fit my program	69%
I evaluated short term outcomes (learning – knowledge, attitudes)	58%
I evaluated program outputs (activities and/or participation)	50%
I analyzed the data collected from the evaluation(s)	42%
I made changes to my program	35%
I evaluated medium term outcomes (actions – behaviors,	27%

decisions)	
I developed a format or data entry system for compiling the data gathered from the evaluation (s)	23%
I evaluated program inputs (investments)	19%
I reported the results of the data analysis	19%
I evaluated long term outcomes (conditions – changes to the environment)	12%
Other	15%

Table 2 summarizes the one year results to the multiple choice question, "How have you implemented your program evaluation plan?" There were ten options provided, including "other," from which the participants could select one or more response. Respondents that selected "other" were asked to provide an explanation in a space provided. The open-ended responses to this item are listed in Appendix F. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 10 respondents, out of the 24 who participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Accordingly, an adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 2. How Spring 2006 Respondents Implemented Evaluation Plan within One Year

How have you implemented your program evaluation plan?	(n = 10)
I revised the tool(s) that I developed in the AEEPE course to better fit my program	70%
I evaluated medium term outcomes (actions – behaviors, decisions)	60%
I evaluated short term outcomes (learning – knowledge, attitudes)	50%
I analyzed the data collected from the evaluation(s)	50%
I evaluated program outputs (activities and/or participation)	30%

I developed a format or data entry system for compiling the data gathered from the evaluation (s)	30%
I reported the results of the data analysis	30%
I made changes to my program	30%
I evaluated program inputs (investments)	10%
I evaluated long term outcomes (conditions – changes to the environment)	10%
Other	20%

Table 3 summarizes the six month results to the multiple choice question, "What aspect(s) of the programs(s) have you evaluated?" There were 13 options provided, including "other," from which the participants could select one or more response. Respondents that selected "other" were asked to provide an explanation in a space provided. The open-ended responses to this item are listed in Appendix F. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 26 respondents, out of the 40 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item.   Accordingly, an adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

 Table 3. Aspects of Program Evaluated by Spring 2006 Respondents within Six Months

What aspect(s) of the programs(s) have you evaluated?	(n = 26)
Program content	81%
Participant knowledge gain/attitude change	69%
Program delivery	65%
Participant satisfaction	58%
Achievement of program objectives	50%
Learner short term outcomes	50%
Participant Behavior	38%

Program ability to meet EE guidelines	15%
Attendance of program	15%
Learner medium term outcomes	15%
Staff knowledge and/or skills	12%
Learner long term outcomes	4%
Other	4%

Table 4 summarizes the one year results to the multiple choice question, "What aspect(s) of the programs(s) have you evaluated?" There were 13 options provided, including "other," from which the participants could select one or more response. Respondents that selected "other" were asked to provide an explanation in a space provided. The open-ended responses to this item are listed in Appendix F. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 10 respondents, out of the 24 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item and not all of the respondents answered this item. Accordingly, an adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 4. Aspects of Program Evaluated by Spring 2006 Respondents within One Year

What aspect(s) of the programs(s) have you evaluated?	(n = 9)
Program content	67%
Program delivery	67%
Participant knowledge gain/attitude change	56%
Participant satisfaction	56%
Participant Behavior	56%
Achievement of program objectives	56%
Learner short term outcomes	56%

Attendance of program	33%
Learner medium term outcomes	33%
Program ability to meet EE guidelines	11%
Staff knowledge and/or skills	11%
Learner long term outcomes	0%
Other	11%

Figure 12 graphically illustrates the six month frequency of the spring 2006 student responses to the Yes/No question, "Have you analyzed the data collected in your evaluation?" Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 26 respondents, out of the 40 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Accordingly, an adjusted respondent number (n) was calculated for this item.

Figure 12. Frequency of Six Month Analysis of Data by Spring 2006 Respondents

Have you analyzed the data collected in your evaluation?	(n = 26)
Yes	54%
No	38%
Not Applicable	8%

Figure 13 graphically illustrates the one year frequency of the spring 2006 student responses to the Yes/No question, "Have you analyzed the data collected in your evaluation?" Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 10 respondents, out of the 24 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Accordingly, an adjusted respondent number (n) was calculated for this item.

Figure 13. Frequency of One Year Analysis of Data by Spring 2006 Respondents

Have you analyzed the data collected in your evaluation?	(n = 10)
Yes	60%
No	40%
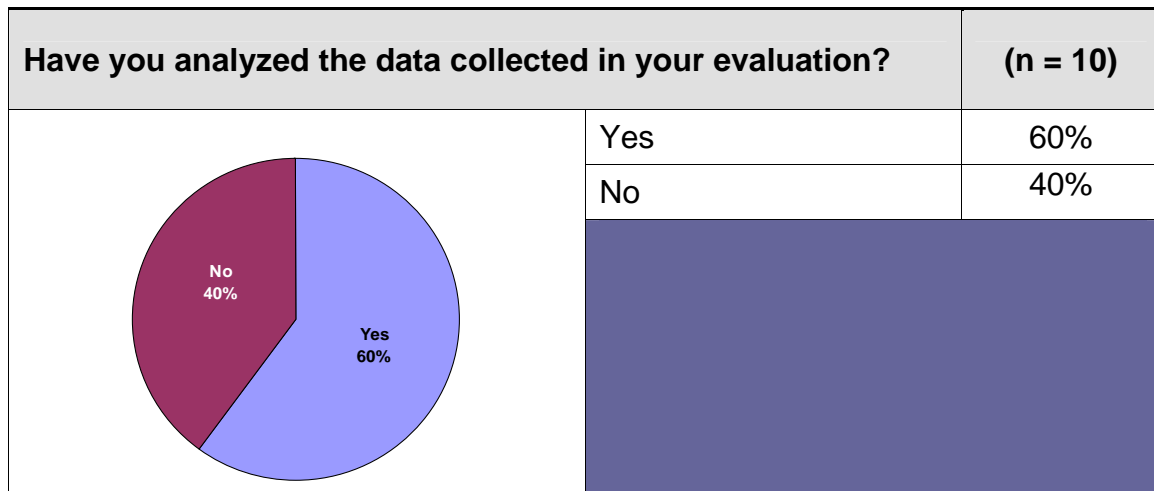
Figure 14 graphically illustrates the six month frequency of the spring 2006 student responses to the Yes/No question, "Did the results of your evaluation enable you to identify any strategies for improving your program?" Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 26 respondents, out of the 40 that participated in the survey, who indicated

that they had implemented some part of their evaluation plan were required to respond to

this item.   Accordingly, an adjusted respondent number (n) was calculated for this item.

Figure 14. Frequency of Strategies Identified by Spring 2006 Respondents within Six Months

Did the results of your evaluation enable you to identify any strategies for improving your program?	(n = 26)
Yes	50%
No	12%
Not Applicable	38%
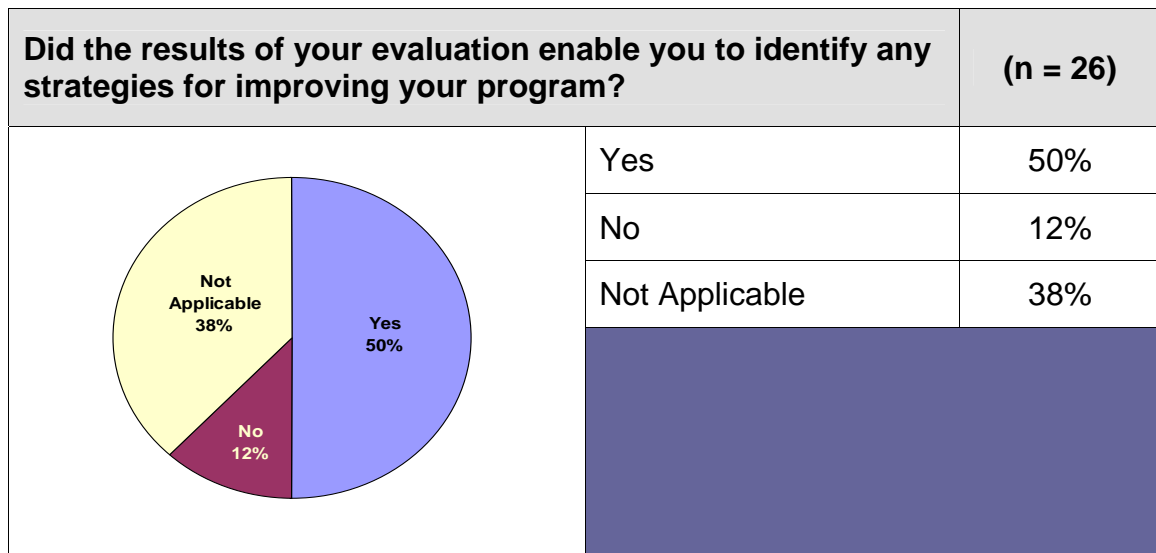
Figure 15 graphically illustrates the one year frequency of the spring 2006 student

responses to the Yes/No question, "Did the results of your evaluation enable you to

identify any strategies for improving your program?" Respondents that indicated that

they had not begun the evaluation process were not directed to answer this question. As

such, only the 10 respondents, out of the 24 that participated in the survey, who indicated

that they had implemented some part of their evaluation plan were required to respond to

this item.   Accordingly, an adjusted respondent number (n) was calculated for this item.

Figure 15. Frequency of Strategies Identified by Spring 2006 Respondents within One Year

Did the results of your evaluation enable you to identify any strategies for improving your program?	(n = 10)
Yes	70%
No	30%
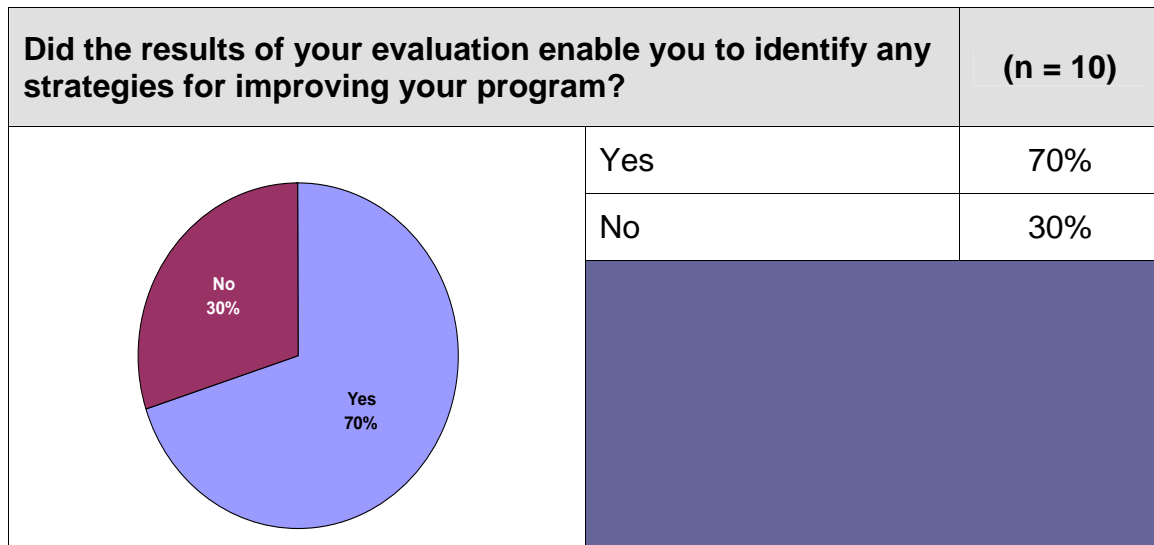
Figure 16 graphically illustrates the six month frequency of the spring 2006 student responses to the Yes/No question, "Have you made any changes or improvements to your program(s) as a result of your program evaluation?" Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 26 respondents, out of the 40 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item.   Accordingly, an adjusted respondent number (n) was calculated for this item.

Figure 16. Frequency of Changes made by Spring 2006 Respondents within Six Months

Have you made any changes or improvements to your program(s) as a result of your program evaluation?	(n = 26)
Yes	35%
No	23%
Not Applicable	42%
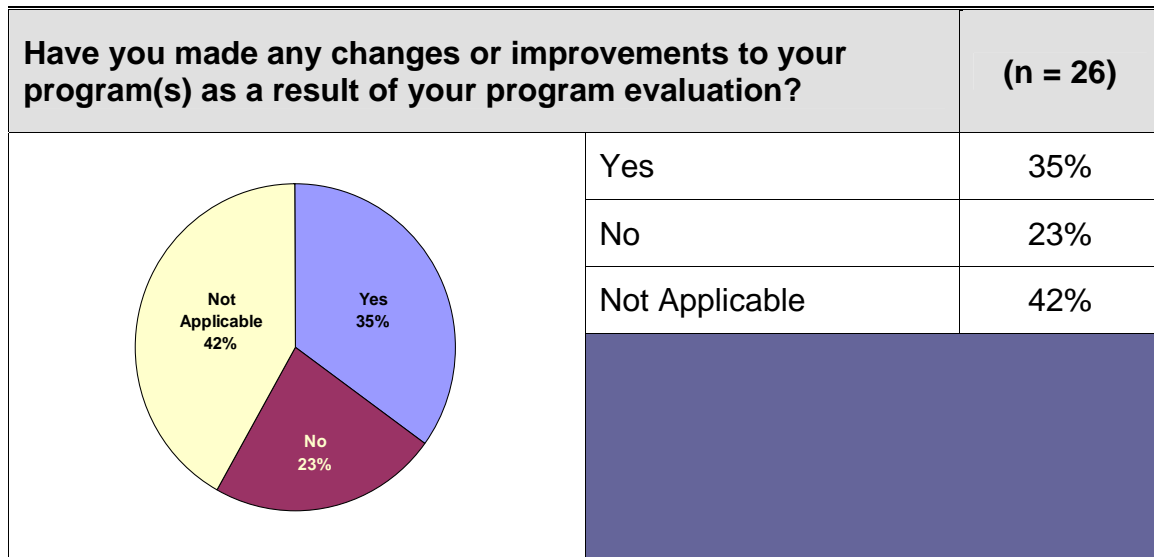
Figure 17 graphically illustrates the one year frequency of the spring 2006 student responses to the Yes/No question, "Have you made any changes or improvements to your program(s) as a result of your program evaluation?" Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 10 respondents, out of the 24 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Accordingly, an adjusted respondent number (n) was calculated for this item.

Figure 17. Frequency of Changes made by Spring 2006 Respondents within One Year

Have you made any changes or improvements to your program(s) as a result of your program evaluation?	(n = 10)
Yes	50%
No	50%
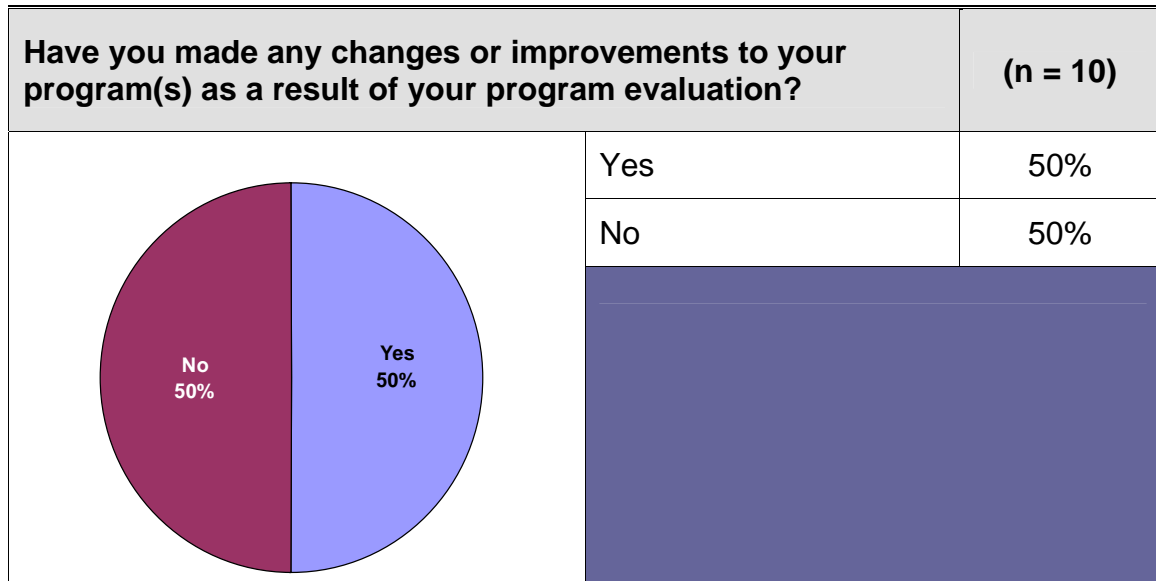
B.   Summer 2006

Table 5 summarizes the six month results to the multiple choice question, "How have you implemented your program evaluation plan?" There were ten options provided, including "other," from which the participants could select one or more response. Respondents that selected "other" were asked to provide an explanation in a space provided. The open-ended responses to this item are listed in Appendix G. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 3 respondents, out of the 8 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item.   Accordingly, an adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 5. How Summer 2006 Respondents Implemented Evaluation Plan

How have you implemented your program evaluation plan?	(n = 3)
I revised the tool(s) that I developed in the AEEPE course to better fit my program	100%
I made changes to my program	100%
I evaluated program outputs (activities and/or participation)	67%
I evaluated short term outcomes (learning – knowledge, attitudes)	67%
I analyzed the data collected from the evaluation(s)	67%
I evaluated program inputs (investments)	33%
I evaluated medium term outcomes (actions – behaviors, decisions)	33%
I developed a format or data entry system for compiling the data gathered from the evaluation (s)	33%
I reported the results of the data analysis	33%
I evaluated long term outcomes (conditions – changes to the environment)	0%
Other	0%

Table 6 summarizes the six month results to the multiple choice question, "What aspect(s) of the programs(s) have you evaluated?" There were 13 options provided, including "other," from which the participants could select one or more response. Respondents that selected "other" were asked to provide an explanation in a space provided. The open-ended responses to this item are listed in Appendix G. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 3 respondents, out of the 8 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Accordingly, an adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 6. Aspects of Program Evaluated by Summer 2006 Respondents

What aspect(s) of the programs(s) have you evaluated?	(n = 3)
Program delivery	100%
Program content	67%
Staff knowledge and/or skills	67%
Learner short term outcomes	67%
Attendance of program	33%
Participant knowledge gain/attitude change	33%
Participant satisfaction	33%
Learner medium term outcomes	33%
Program ability to meet EE guidelines	0%
Participant Behavior	0%
Achievement of program objectives	0%
Learner long term outcomes	0%
Other	0%

Figure 18 graphically illustrates the six month frequency of the fall 2006 student responses to the Yes/No question, "Have you analyzed the data collected in your evaluation?" Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 3 respondents, out of the 8 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Accordingly, an adjusted respondent number (n) was calculated for this item.

Figure 18. Frequency of Analysis of Data by Summer 2006 Respondents

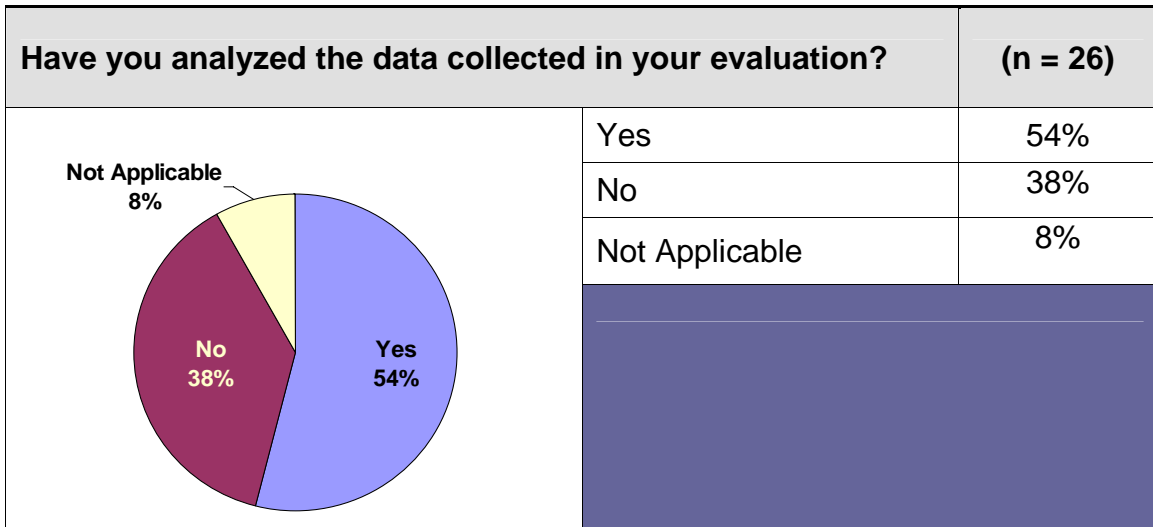| Have you analyzed the data collected in your evaluation?	(n = 3)
Yes	100%
No	0%
Not Applicable	0%
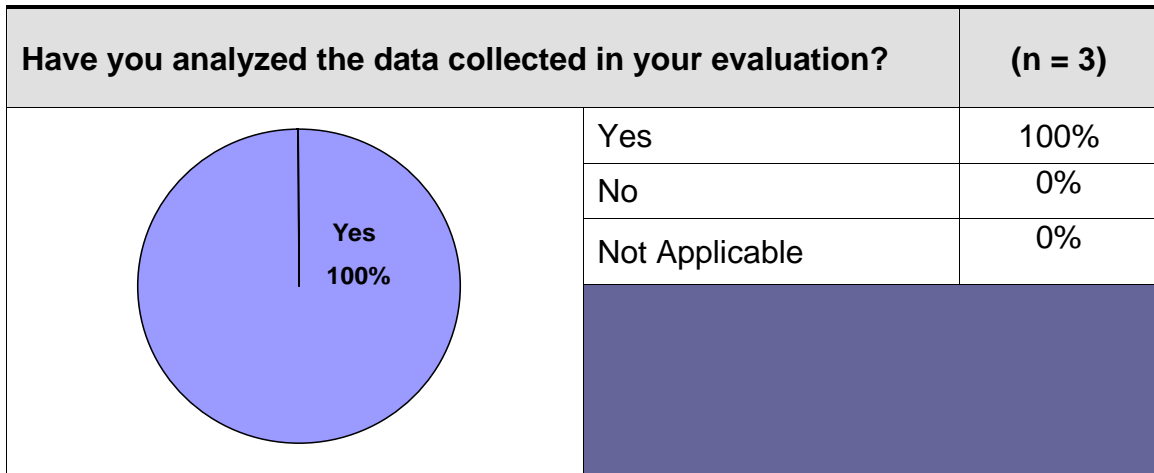
Figure 19 graphically illustrates the frequency of the summer 2006 student responses to the Yes/No question, "Did the results of your evaluation enable you to identify any strategies for improving your program?" Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 3 respondents, out of the 8 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Accordingly, an adjusted respondent number (n) was calculated for this item.

Figure 19. Frequency of Strategies Identified by Summer 2006 Respondents

| Did the results of your evaluation enable you to identify any strategies for improving your program?	(n = 3)
Yes	100%
No	0%
Not Applicable	0%

Figure 20 graphically illustrates the frequency of the summer 2006 student

responses to the Yes/No question, "Have you made any changes or improvements to your

program(s) as a result of your program evaluation?" Respondents that indicated that they

had not begun the evaluation process were not directed to answer this question. As such,

only the 3 respondents, out of the 8 that participated in the survey, who indicated that

they had implemented some part of their evaluation plan were required to respond to this

item. Accordingly, an adjusted respondent number (n) was calculated for this item.

Figure 20. Frequency of Changes made by Summer 2006 Respondents

Have you made any changes or improvements to your program(s) as a result of your program evaluation?	(n = 3)

Yes	100%
No	0%
Not Applicable	0%
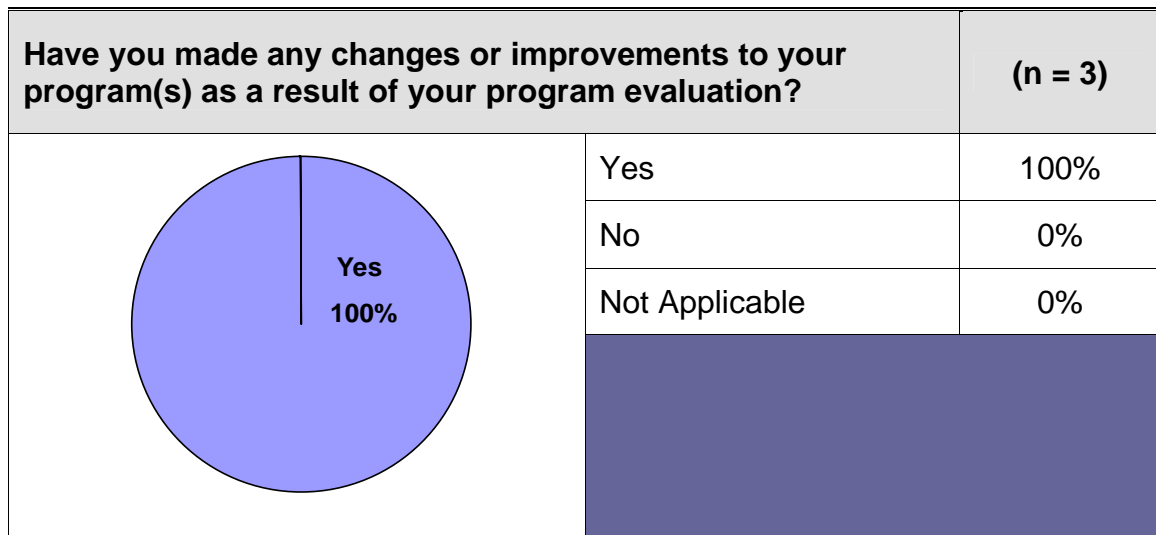
C.   Fall 2006

Table 7 summarizes the six month results to the multiple choice question, "How

have you implemented your program evaluation plan?" There were ten options provided,

including "other," from which the participants could select one or more response.

Respondents that selected "other" were asked to provide an explanation in a space

provided. The open-ended responses to this item are listed in Appendix H. Respondents

that indicated that they had not begun the evaluation process were not directed to answer

this question. As such, only the 7 respondents, out of the 17 that participated in the

survey, who indicated that they had implemented some part of their evaluation plan were

required to respond to this item. Accordingly, an adjusted respondent number (n) was

calculated for this item. Because more than one response was permitted for this item, the

frequency of response totals more than 100%.

Table 7. How Fall 2006 Respondents Implemented Evaluation Plan

How have you implemented your program evaluation plan?	(n = 7)
I revised the tool(s) that I developed in the AEEPE course to better fit my program	100%
I evaluated program outputs (activities and/or participation)	71%
I evaluated short term outcomes (learning – knowledge, attitudes)	71%
I analyzed the data collected from the evaluation(s)	43%
I evaluated program inputs (investments)	14%
I reported the results of the data analysis	14%
I made changes to my program	14%
I evaluated medium term outcomes (actions – behaviors, decisions)	0%
I evaluated long term outcomes (conditions – changes to the environment)	0%
I developed a format or data entry system for compiling the data gathered from the evaluation (s)	0%
Other	0%

Table 8 summarizes the six month results to the multiple choice question, "What

aspect(s) of the programs(s) have you evaluated?" There were 13 options provided,

including "other," from which the participants could select one or more response.

Respondents that selected "other" were asked to provide an explanation in a space

provided. The open-ended responses to this item are listed in Appendix H. Respondents

that indicated that they had not begun the evaluation process were not directed to answer

this question. As such, only the 7 respondents, out of the 17 that participated in the

survey, who indicated that they had implemented some part of their evaluation plan were

required to respond to this item.   Accordingly, an adjusted respondent number (n) was

calculated for this item. Because more than one response was permitted for this item, the

frequency of response totals more than 100%.

Table 8. Aspects of Program Evaluated by Fall 2006 Respondents

What aspect(s) of the programs(s) have you evaluated?	(n = 7)
Program content	71%
Participant satisfaction	57%
Learner short term outcomes	57%
Staff knowledge and/or skills	43%
Achievement of program objectives	43%
Attendance of program	29%
Participant knowledge gain/attitude change	29%
Participant Behavior	29%
Program ability to meet EE guidelines	14%
Program delivery	0%
Learner medium term outcomes	0%
Learner long term outcomes	0%
Other	0%

Figure 21 graphically illustrates the six month frequency of the fall 2006 student

responses to the Yes/No question, "Have you analyzed the data collected in your

evaluation?" Respondents that indicated that they had not begun the evaluation process

were not directed to answer this question. As such, only the 7 respondents, out of the 17

that participated in the survey, who indicated that they had implemented some part of

their evaluation plan were required to respond to this item.   Accordingly, an adjusted

respondent number (n) was calculated for this item.

Figure 21. Frequency of Analysis of Data by Fall 2006 Respondents

Have you analyzed the data collected in your evaluation?	(n = 7)
Yes	43%
No	43%
Not Applicable	14%
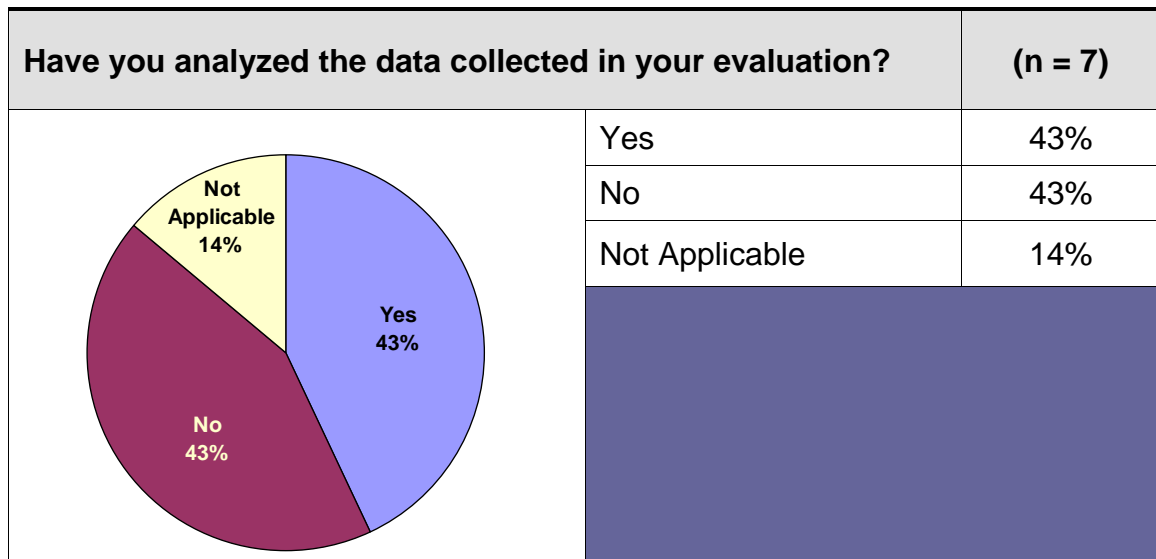
Figure 22 graphically illustrates the frequency of the fall 2006 student responses to the Yes/No question, "Did the results of your evaluation enable you to identify any strategies for improving your program?" Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 7 respondents, out of the 17 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Accordingly, an adjusted respondent number (n) was calculated for this item.

Figure 22. Frequency of Strategies Identified by Fall 2006 Respondents

Did the results of your evaluation enable you to identify any strategies for improving your program?	(n = 7)

Yes	43%
No	0%
Not Applicable	57%

Figure 23 graphically illustrates the frequency of the fall 2006 student responses to the Yes/No question, "Have you made any changes or improvements to your program(s) as a result of your program evaluation?" Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 7 respondents, out of the 17 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Accordingly, an adjusted respondent number (n) was calculated for this item.

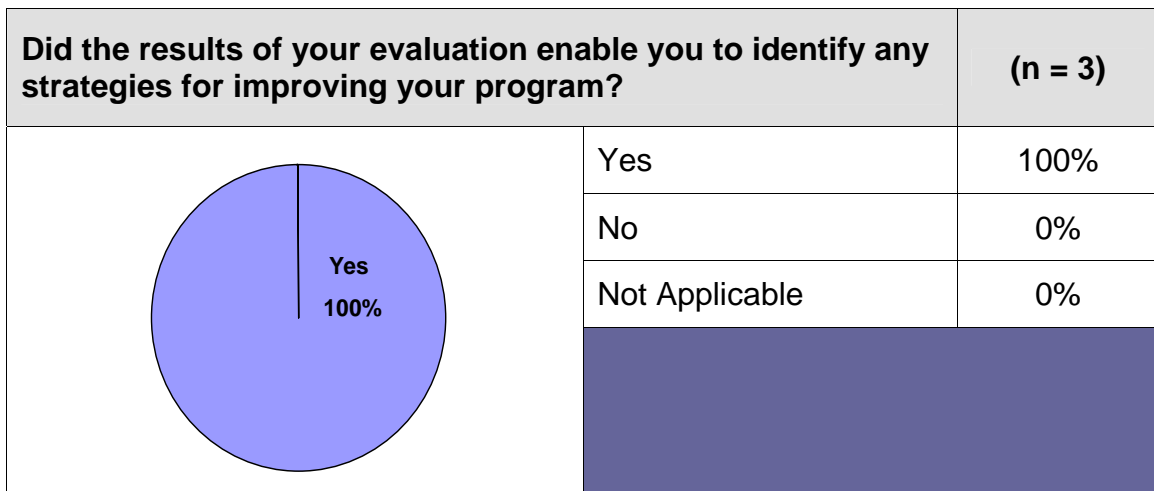**Figure 23. Frequency of Changes made by Fall 2006 Respondents**

Have you made any changes or improvements to your program(s) as a result of your program evaluation?	(n = 7)
Yes	29%
No	14%
Not Applicable	57%
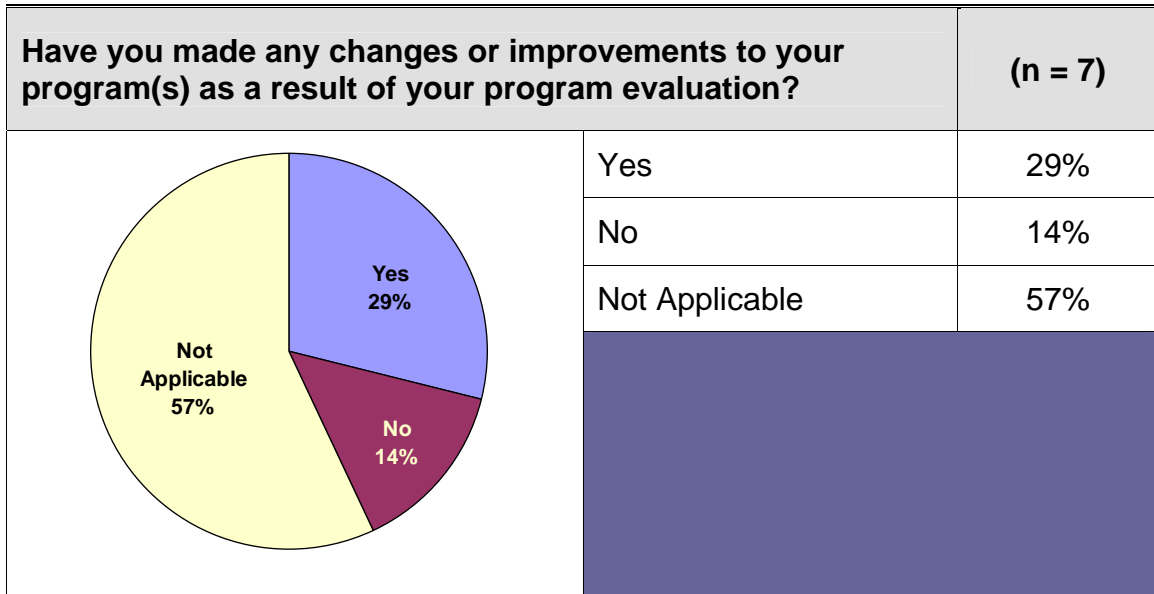
D.   **Compiled Results**

Table 9 summarizes the six month results to the multiple choice question, "How have you implemented your program evaluation plan?" There were ten options provided, including "other," from which the participants could select one or more response. Respondents that selected "other" were asked to provide an explanation in a space provided. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 39 respondents, out of the 65 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Accordingly, an adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 9. How Respondents Implemented Evaluation Plan (Compiled)

How have you implemented your program evaluation plan?	(n = 39)
I revised the tool(s) that I developed in the AEEPE course to better fit my program	72%
I evaluated short term outcomes (learning – knowledge, attitudes)	56%
I analyzed the data collected from the evaluation(s)	56%
I evaluated program outputs (activities and/or participation)	51%
I made changes to my program	46%
I evaluated medium term outcomes (actions – behaviors, decisions)	21%
I evaluated program inputs (investments)	18%
I developed a format or data entry system for compiling the data gathered from the evaluation (s)	18%
I reported the results of the data analysis	18%
I evaluated long term outcomes (conditions – changes to the environment)	8%
Other	15%

Table 10 summarizes the six month results to the multiple choice question, "What aspect(s) of the programs(s) have you evaluated?" There were 13 options provided, including "other," from which the participants could select one or more response. Respondents that selected "other" were asked to provide an explanation in a space provided. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 39 respondents, out of the 65 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Accordingly, an adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 10. Aspects of Program Evaluated by Respondents (Compiled)

What aspect(s) of the programs(s) have you evaluated?	(n = 39)
Program content	72%
Program delivery	51%
Participant satisfaction	51%
Learner short term outcomes	49%
Achievement of program objectives	41%
Participant Behavior	31%
Participant knowledge gain/attitude change	28%
Staff knowledge and/or skills	21%
Attendance of program	18%
Program ability to meet EE guidelines	13%
Learner medium term outcomes	13%
Learner long term outcomes	3%
Other	3%

Figure 24 graphically illustrates the six month frequency of student responses to the Yes/No question, "Have you analyzed the data collected in your evaluation?" Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 39 respondents, out of the 65 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Accordingly, an adjusted respondent number (n) was calculated for this item.

Figure 24. Frequency of Analysis of Data by Respondents (Compiled)

Have you analyzed the data collected in your evaluation?	(n = 39)
Yes	56%
No	44%
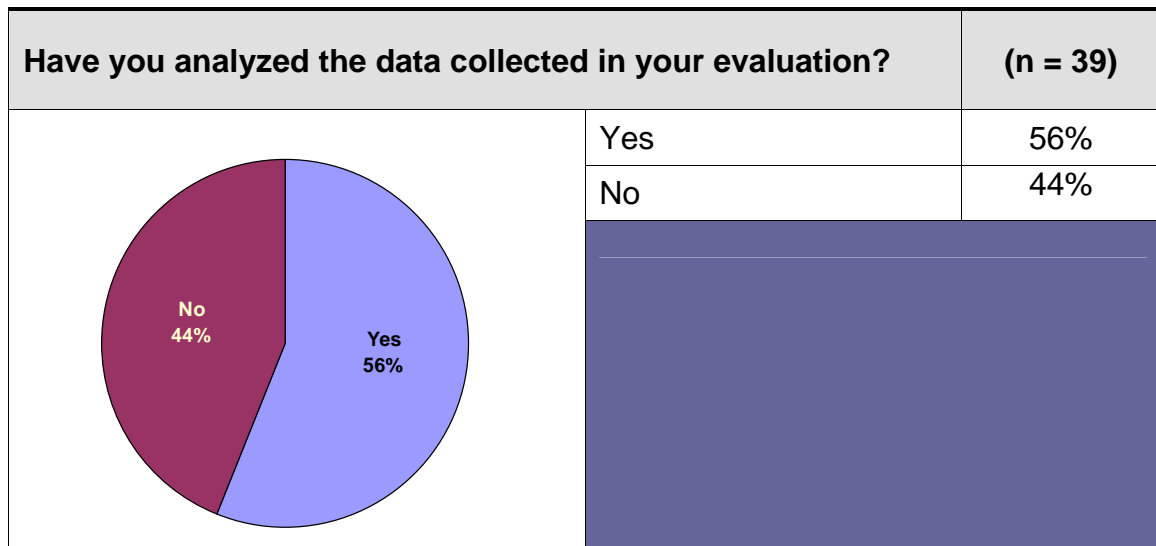
Figure 25 graphically illustrates the six month frequency of student responses to the Yes/No question, "Did the results of your evaluation enable you to identify any strategies for improving your program?" Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 39 respondents, out of the 65 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Accordingly, an adjusted respondent number (n) was calculated for this item.

Figure 25. Frequency of Strategies Identified by Respondents (Compiled)

Did the results of your evaluation enable you to identify any strategies for improving your program?	(n = 39)
Yes	56%
No	44%
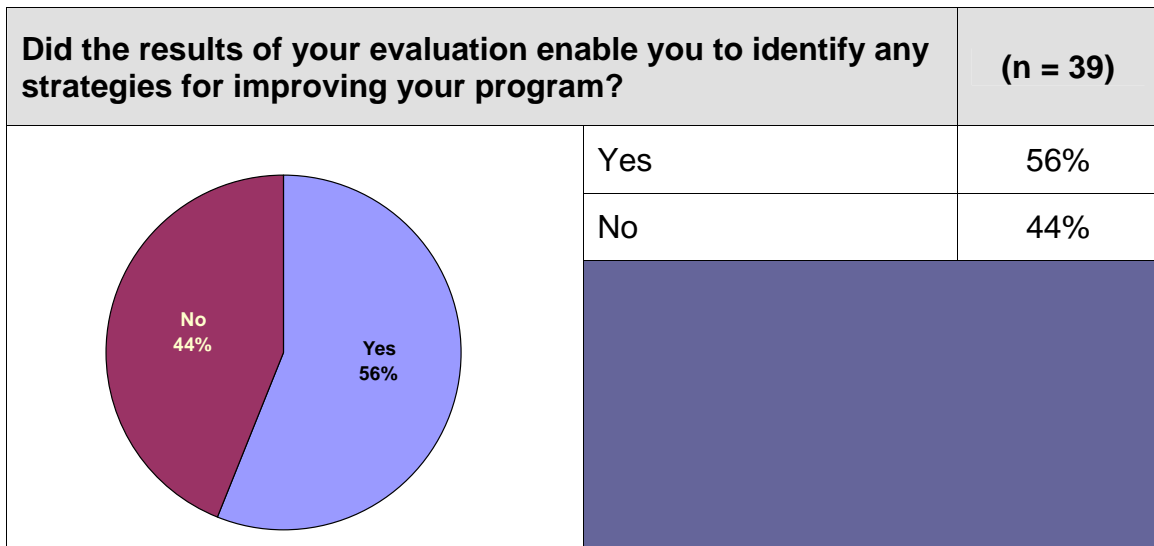
Figure 26 graphically illustrates the six month frequency of student responses to the Yes/No question, "Have you made any changes or improvements to your program(s) as a result of your program evaluation?" Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 39 respondents, out of the 65 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Accordingly, an adjusted respondent number (n) was calculated for this item.

Figure 26. Frequency of Changes made by Respondents (Compiled)
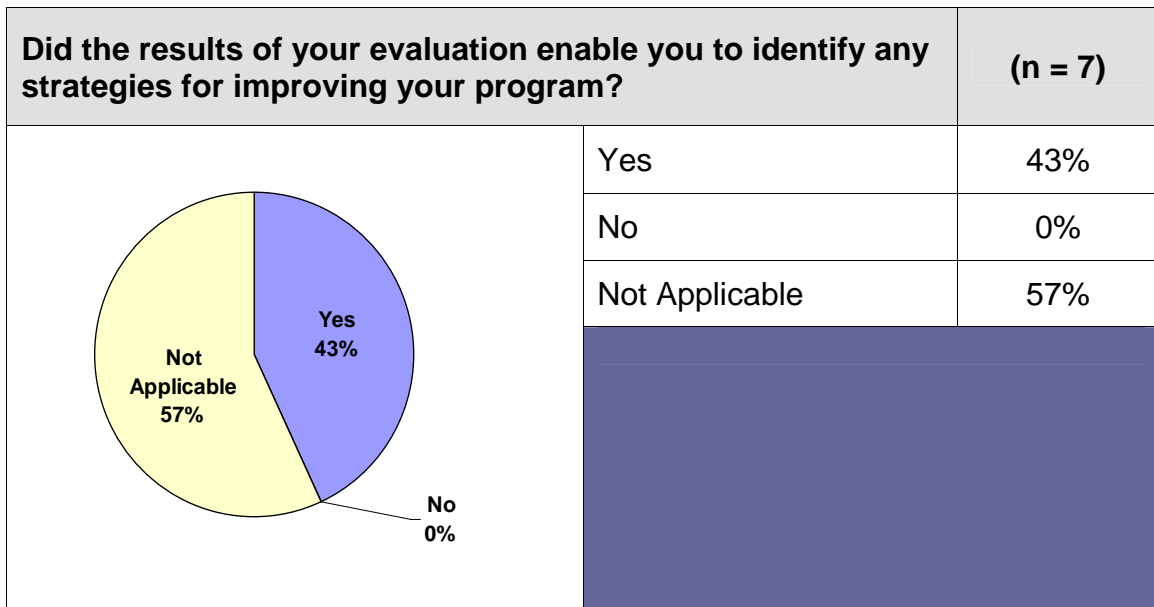
Have you made any changes or improvements to your program(s) as a result of your program evaluation?	(n = 39)
Yes	46%
No	54%
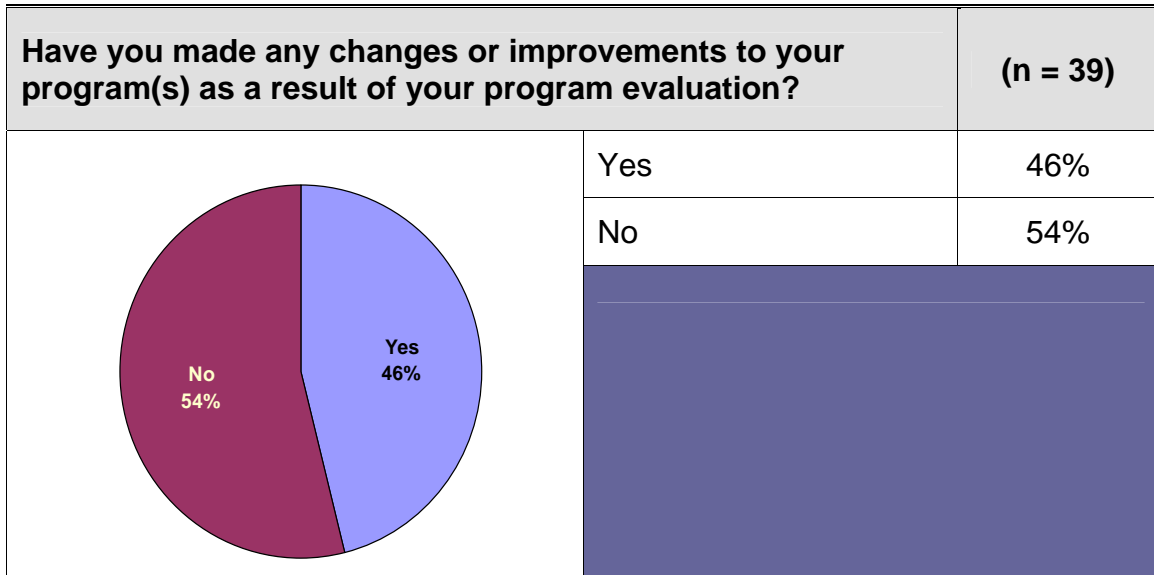
IV. OBJECTIVE THREE

The purpose of objective three was to determine what outcomes and strategies the course participants identified as a result of their program evaluations. To determine what outcomes and strategies the course participants identified as a result of their evaluations, two corresponding questions were asked of the course participants. The first item asked, "What results or conclusions about your program did the analysis of the data from the evaluation identify?" This question was an open-ended question. The second item asked the respondents to describe the strategies that they identified for improving their programs. This question was also an open-ended question.

A. Spring 2006

Because respondents to the spring 2006 six month questionnaire indicated that time was the barrier that they most frequently encountered, it was determined that a

second questionnaire should be administered to the spring 2006 respondents after a period of one year to determine if participants that did not evaluate their programs within six months of completing the course would begin or complete an evaluation of their program within the extended time period of one year. Twenty –four course participants that completed the six month post course questionnaire also completed the one year post course questionnaire. This section presents the results from both the spring 2006 six month post course questionnaire and the one year post course questionnaire.

Table 11 summarizes the six month results to the open-ended question, "What results or conclusions about your program did the analysis of the data from the evaluation identify?" Because this was an open-ended response item and the question did not have pre-determined answers provided, the responses that were provided were coded into 15 categories. The original open-ended responses to this item are listed in Appendix F. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 26 respondents, out of the 40 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were asked to respond to this item.   Additionally, not all of the respondents answered this question. Accordingly, an adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 11. Conclusions Identified by Spring 2006 Respondents Within Six Months

What results or conclusions about your program did the analysis of the data from the evaluation identify?	(n = 14)
Identified areas where program(s)/tool(s) need improvement	36%
Participant satisfaction was high	29%
Identified strengths of program(s)/tools(s)	21%
Program objectives/goals were met	14%
Identified strengths and/or weaknesses of evaluation tool	14%
Identified participant behavior changes	14%
Determined what demographics are not being targeted effectively	14%
Identified short term outcomes of program	14%
There was a measurable/observable change in participant knowledge gain/attitude change	7%
There was not a measurable/observable change in participant knowledge gain/attitude change	7%
Identified medium term outcomes of program	7%
Analysis is still in process	21%

Table 12 summarizes the one year results to the open-ended question, "What results or conclusions about your program did the analysis of the data from the evaluation identify?" Because this was an open-ended response item and the question did not have pre-determined answers provided, the responses that were provided were coded into 15 categories. The original open-ended responses to this item are listed in Appendix F. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 10 respondents, out of the 24 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were asked to respond to this item. Additionally, not all of the respondents answered this question. Accordingly, an adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 12. Conclusions Identified by Spring 2006 Respondents Within One Year

What results or conclusions about your program did the analysis of the data from the evaluation identify?	(n = 6)
Identified strengths of program(s)/tools(s)	33%
Program objectives/goals were met	17%
Identified areas where program(s)/tool(s) need improvement	17%
Identified participant behavior changes	17%
Identified program audience demographics/pre-program skills and/or knowledge	17%
Determined what demographics are not being targeted effectively	17%
Developed program/tool based on front end evaluation results	17%
Analysis is still in process	17%

Table 13 summarizes the six month results to the open-ended item, "Please describe the strategies that you identified for improving your program." Because this was an open-ended response item and the question did not have pre-determined answers provided, the responses that were provided were coded into 7 categories. The original open-ended responses to this item are listed in Appendix F. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 26 respondents, out of the 40 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were asked to respond to this item. Additionally, not all of the respondents answered this question. Accordingly, an adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 13. Strategies Identified by Spring 2006 Respondents Within Six Months

Please describe the strategies that you identified for improving your program?	(n = 6)
Change content to meet audience's needs/interests	33%
Create or modify assessment tool(s)	33%
Improve/utilize front end evaluation when developing program(s)/tool(s)	17%
Adjust cognitive level (increase/decrease) of program/tool content	17%
Train staff/volunteers in needed knowledge or skills	17%
Change/add pre-program preparation/activities	17%

Table 14 summarizes the one year results to the open-ended item, "Please describe the strategies that you identified for improving your program." Because this was an open-ended response item and the question did not have pre-determined answers provided, the responses that were provided were coded into 7 categories. The original open-ended responses to this item are listed in Appendix F. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 10 respondents, out of the 24 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were asked to respond to this item. Additionally, not all of the respondents answered this question. Accordingly, an adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 14. Strategies Identified by Spring 2006 Respondents Within One Year

Please describe the strategies that you identified for improving your program.	(n = 5)
Include more stakeholders in program/tool development or revision	60%
Change content to meet audience's needs/interests	60%
Change/add pre-program preparation/activities	20%

B.   Summer 2006

Table 15 summarizes the six month results to the open-ended question, "What results or conclusions about your program did the analysis of the data from the evaluation identify?" Because this was an open-ended response item and the question did not have pre-determined answers provided, the responses that were provided were coded into 15 categories. The original open-ended responses to this item are listed in Appendix G. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 3 respondents, out of the 8 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were asked to respond to this item. Additionally, not all of the respondents answered this question. Accordingly, an adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 15. Conclusions Identified by Summer 2006 Respondents

What results or conclusions about your program did the analysis of the data from the evaluation identify?	(n = 3)
Identified strengths of program(s)/tools(s)	67%
Identified areas where program(s)/tool(s) need improvement	67%
Program objectives/goals were met	33%
There was a measurable/observable change in participant knowledge gain/attitude change	33%
Developed program/tool based on front end evaluation results	33%

Table 16 summarizes the six month results to the open-ended item, "Please describe the strategies that you identified for improving your program." Because this was an open-ended response item and the question did not have pre-determined answers provided, the responses that were provided were coded into 7 categories. The original open-ended responses to this item are listed in Appendix G. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 3 respondents, out of the 8 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were asked to respond to this item. Additionally, not all of the respondents answered this question. Accordingly, an adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 16. Strategies Identified by Summer 2006 Respondents

Please describe the strategies that you identified for improving your program?	(n = 3)
Change program content to meet audience's needs/interests or standards	33%
Change program delivery to meet audience's needs/interests	33%

C. Fall 2006

Table 17 summarizes the six month results to the open-ended question, "What results or conclusions about your program did the analysis of the data from the evaluation identify?" Because this was an open-ended response item and the question did not have pre-determined answers provided, the responses that were provided were coded into 15 categories. The original open-ended responses to this item are listed in Appendix H. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 7 respondents, out of the 17 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were asked to respond to this item. Additionally, not all of the respondents answered this question. Accordingly, an adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 17. Conclusions Identified by Fall 2006 Respondents

What results or conclusions about your program did the analysis of the data from the evaluation identify?	(n = 3)
Program objectives/goals were met	67%
Identified strengths of program(s)/tools(s)	33%
Identified areas where program(s)/tool(s) need improvement	33%
There was a measurable/observable change in participant knowledge gain/attitude change	33%
Participant satisfaction was high	33%
Identified strengths and/or weaknesses of evaluation tool	33%

Table 18 summarizes the six month results to the open-ended item, "Please describe the strategies that you identified for improving your program." Because this was an open-ended response item and the question did not have pre-determined answers provided, the responses that were provided were coded into 7 categories. The original open-ended responses to this item are listed in Appendix H. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 7 respondents, out of the 17 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were asked to respond to this item. Additionally, not all of the respondents answered this question. Accordingly, an adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 18. Strategies Identified by Fall 2006 Respondents

Please describe the strategies that you identified for improving your program?	(n = 3)
Change program content to meet audience's needs/interests or standards	67%
Change program delivery to meet audience's needs/interests	33%
Train staff/volunteers in needed knowledge or skills	33%
Change/add pre-program preparation/activities	33%
Change program implementation to improve program attendance	33%

D.   Compiled Results

Table 19 summarizes the six month results to the open-ended question, "What results or conclusions about your program did the analysis of the data from the evaluation identify?" Because this was an open-ended response item and the question did not have pre-determined answers provided, the responses that were provided were coded into 15 categories. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 39 respondents, out of the 65 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were asked to respond to this item.   Additionally, not all of the respondents answered this question. Accordingly, an adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 19. Conclusions Identified by Respondents (Compiled)

What results or conclusions about your program did the analysis of the data from the evaluation identify?	(n = 20)
Identified areas where program(s)/tool(s) need improvement	50%
Program objectives/goals were met	25%
Participant satisfaction was high	25%
Identified strengths of program(s)/tools(s)	20%
Identified strengths and/or weaknesses of evaluation tool	15%
There was a measurable/observable change in participant knowledge gain/attitude change	10%
Identified participant behavior changes	10%
Identified program audience demographics/pre-program skills and/or knowledge	10%
Identified short term outcomes of program	10%
Identified areas where more staff training was needed	10%
There was not a measurable/observable change in participant knowledge gain/attitude change	5%
Identified areas for improved staff/volunteer training	5%
Determined what demographics are not being targeted effectively	5%
Identified medium term outcomes of program	5%
Developed program/tool based on front end evaluation results	5%
Analysis is still in process	15%

Table 20 summarizes the six month results to the open-ended item, "Please describe the strategies that you identified for improving your program." Because this was an open-ended response item and the question did not have pre-determined answers provided, the responses that were provided were coded into 7 categories. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 39 respondents, out of the 65 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were asked to respond to this item. Additionally, not all of the respondents answered this question. Accordingly, an adjusted respondent number (n) was calculated for this item.

Because more than one response was permitted for this item, the frequency of response

totals more than 100%.

Table 20. Strategies Identified by Respondents (Compiled)

Please describe the strategies that you identified for improving your program?	(n = 12)
Change program content to meet audience's needs/interests or standards	50%
Change program delivery to meet audience's needs/interests	17%
Create or modify assessment tool(s)	17%
Train staff/volunteers in needed knowledge or skills	17%
Change/add pre-program preparation/activities	17%
Improve/utilize front end evaluation when developing program(s)/tool(s)	8%
Adjust cognitive level (increase/decrease) of program/tool content	8%
Include more stakeholders in program/tool development or revision	8%
Change program implementation to improve program attendance	8%

V.   OBJECTIVE FOUR

The purpose of objective four was to identify what changes the course participants

made to their programs based on the results of their evaluations. To determine what

changes the course participants made based on the result of their evaluations the

respondents were asked the question, "What changes or improvements have you made to

your program(s) as a result of the information gathered with the evaluation?"

Additionally, the respondents were asked to rate the changes that they made to their

programs.

A.   Spring 2006

Because respondents to the spring 2006 six month questionnaire indicated that time was the barrier that they most frequently encountered, it was determined that a second questionnaire should be administered to the spring 2006 respondents after a period of one year to determine if participants that did not evaluate their programs within six months of completing the course would begin or complete an evaluation of their program within the extended time period of one year. Twenty –four course participants that completed the six month post course questionnaire also completed the one year post course questionnaire. This section presents the results from both the spring 2006 six month post course questionnaire and the one year post course questionnaire.

Table 21 summarizes the six month results to the multiple choice question, "What changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation?" There were 6 options provided, including "other," from which the participants could select one or more response. Respondents that selected "other" were asked to provide an explanation in a space provided. The open-ended responses to this item are listed in Appendix F. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 26 respondents, out of the 40 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Additionally, not all of the respondents provided a response for this item. An adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

113

Table 21. Changes Made by Spring 2006 Respondents within Six Months

What changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation?	(n = 9)
Changed program delivery	31%
Changed program content	31%
Redefined goals or objectives	13%
Made changes to program to meet EE guidelines	13%
Increased or changed staff/volunteer training	13%
Other	13%

Table 22 summarizes the one year results to the multiple choice question, "What changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation?" There were 6 options provided, including "other," from which the participants could select one or more response. Respondents that selected "other" were asked to provide an explanation in a space provided. The open-ended responses to this item are listed in Appendix F. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 10 respondents, out of the 24 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Additionally, not all of the respondents provided a response for this item. An adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 22. Changes Made by Spring 2006 Respondents within One Year

What changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation?	(n = 5)
Changed program delivery	60%
Changed program content	40%
Increased or changed staff/volunteer training	40%
Redefined goals or objectives	20%
Made changes to program to meet EE guidelines	20%
Other	20%

Table 23 summarizes the results of the Likert-type scale item, "How would you rate the changes that have been made to your program(s) as a result of the data gathered in the evaluation(s)?" from the spring 2006 six month post course questionnaire. The question was scored using the following ordered –choice response categories: 5=Completely Changed or Redesigned the Program, 4=Significant Changes, 3=Some Changes, 2=Minor Changes, 1=No Changes. A mean score was calculated for the item based on a 5 point scale. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 26 respondents, out of the 40 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Additionally, not all of the respondents provided a response for this item. An adjusted respondent number (n) was calculated for this item.

Table 23. Spring 2006 Six Month Post Course Questionnaire Responses to Changes Likert Scale Item

How would you rate the changes that have been made to your program(s) as a result of the data gathered in the evaluation(s)?	Mean (n=9)
	2.67
No Changes	0%
Minor Changes	56%
Some Changes	22%
Significant Changes	22%
Completely Changed or Redesigned the Program	0%

The mean score for this item was greater than 2.00, corresponding with the order-choice response categories that indicated changes were made.

Table 24 summarizes the results of the Likert scale item, "How would you rate the changes that have been made to your program(s) as a result of the data gathered in the evaluation(s)?" from the spring 2006 one year post course questionnaire. The question was scored using the following ordered –choice response categories: 5=Completely Changed or Redesigned the Program, 4=Significant Changes, 3=Some Changes, 2=Minor Changes, 1=No Changes. A mean score was calculated for the item based on a 5 point scale. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 10 respondents, out of the 24 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Additionally, not all of the respondents provided a response for this item. An adjusted respondent number (n) was calculated for this item.

Table 24. Spring 2006 One Year Post Course Questionnaire Responses to Changes Likert Scale Item

How would you rate the changes that have been made to your program(s) as a result of the data gathered in the evaluation(s)?	Mean (n=6)
	3.17
No Changes	0%
Minor Changes	17%
Some Changes	50%
Significant Changes	33%
Completely Changed or Redesigned the Program	0%

The mean score for this item was greater than 3.00, corresponding with the order-choice responses of some changes or significant changes.

B.   Summer 2006

Table 25 summarizes the six month results to the multiple choice question, "What changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation?" There were 6 options provided, including "other," from which the participants could select one or more response. Respondents that selected "other" were asked to provide an explanation in a space provided. The open-ended responses to this item are listed in Appendix G. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 3 respondents, out of the 8 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Additionally, not all of the respondents provided a response for this item. An adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 25. Changes Made by Summer 2006 Respondents

What changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation?	(n = 3)
Redefined goals or objectives	100%
Changed program delivery	67%
Made changes to program to meet EE guidelines	67%
Changed program content	67%
Increased or changed staff/volunteer training	33%
Other	100%

Table 26 summarizes the results of the Likert scale item, "How would you rate the changes that have been made to your program(s) as a result of the data gathered in the evaluation(s)?" from the summer 2006 six month post course questionnaire. The question was scored using the following ordered –choice response categories: 5=Completely Changed or Redesigned the Program, 4=Significant Changes, 3=Some Changes, 2=Minor Changes, 1=No Changes. A mean score was calculated for the item based on a 5 point scale. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 3 respondents, out of the 8 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Additionally, not all of the respondents provided a response for this item. An adjusted respondent number (n) was calculated for this item.

Table 26. Summer 2006 Response to Changes Likert Scale Item

How would you rate the changes that have been made to your program(s) as a result of the data gathered in the evaluation(s)?	Mean (n=3)
	3.0
No Changes	0%
Minor Changes	33%
Some Changes	33%
Significant Changes	33%
Completely Changed or Redesigned the Program	0%

The mean score for this item was greater than 3.00, corresponding with the order-choice responses of some changes or significant changes.

C.   Fall 2006

Table 27 summarizes the six month results to the multiple choice question, "What changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation?" There were 6 options provided, including "other," from which the participants could select one or more response. Respondents that selected "other" were asked to provide an explanation in a space provided. The open-ended responses to this item are listed in Appendix H. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 7 respondents, out of the 17 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Additionally, not all of the respondents provided a response for this item. An adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

119

Table 27. Changes Made by Fall 2006 Respondents

What changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation?	(n = 2)
Redefined goals or objectives	100%
Changed program delivery	100%
Increased or changed staff/volunteer training	100%
Made changes to program to meet EE guidelines	0%
Changed program content	0%
Other	100%

Table 28 summarizes the results of the Likert scale item, "How would you rate

the changes that have been made to your program(s) as a result of the data gathered in the

evaluation(s)?" from the fall 2006 six month post course questionnaire. The question was

scored using the following ordered –choice response categories: 5=Completely Changed

or Redesigned the Program, 4=Significant Changes, 3=Some Changes, 2=Minor Changes,

1=No Changes. A mean score was calculated for the item based on a 5 point scale.

Respondents that indicated that they had not begun the evaluation process were not

directed to answer this question. As such, only the 7 respondents, out of the 17 that

participated in the survey, who indicated that they had implemented some part of their

evaluation plan were required to respond to this item. Additionally, not all of the

respondents provided a response for this item. An adjusted respondent number (n) was

calculated for this item.

Table 28. Fall 2006 Response to Changes Likert Scale Item

How would you rate the changes that have been made to your program(s) as a result of the data gathered in the evaluation(s)?	Mean (n=2)
	3.5
No Changes	0%
Minor Changes	0%
Some Changes	50%
Significant Changes	50%
Completely Changed or Redesigned the Program	0%

The mean score for this item was greater than 3.00, corresponding with the order-choice responses of some changes or significant changes.

D.   Compiled Results

Table 29 summarizes the six month results to the multiple choice question, "What changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation?" There were 6 options provided, including "other," from which the participants could select one or more response. Respondents that selected "other" were asked to provide an explanation in a space provided. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 39 respondents, out of the 65 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Additionally, not all of the respondents provided a response for this item. An adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 29. Changes Made by Respondents (Compiled)

What changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation?	(n = 14)
Changed program delivery	50%
Redefined goals or objectives	43%
Changed program content	36%
Increased or changed staff/volunteer training	28%
Made changes to program to meet EE guidelines	21%
Other	43%

Table 30 summarizes the results of the Likert scale item, "How would you rate the changes that have been made to your program(s) as a result of the data gathered in the evaluation(s)?" The question was scored using the following ordered –choice response categories: 5=Completely Changed or Redesigned the Program, 4=Significant Changes, 3=Some Changes, 2=Minor Changes, 1=No Changes. A mean score was calculated for the item based on a 5 point scale. Respondents that indicated that they had not begun the evaluation process were not directed to answer this question. As such, only the 39 respondents, out of the 65 that participated in the survey, who indicated that they had implemented some part of their evaluation plan were required to respond to this item. Additionally, not all of the respondents provided a response for this item. An adjusted respondent number (n) was calculated for this item.

Table 30. Response to Changes Likert Scale Item (Compiled)

How would you rate the changes that have been made to your program(s) as a result of the data gathered in the evaluation(s)?	Mean (n=11)
	3.18
No Changes	0%
Minor Changes	18%
Some Changes	45%
Significant Changes	36%
Completely Changed or Redesigned the Program	0%

The mean score for this item was greater than 3.00, corresponding with the order-choice responses of some changes or significant changes.

VI.   OBJECTIVE FIVE

The purpose of objective five was to determine why some course participants do not conduct an evaluation of their program within six months of completing the course. To determine why some course participants did not conduct an evaluation of their program within six months of completing the course, the respondents who indicated that they had not begun the implementation of their evaluation plan were asked the question, "What was the reason that you did not implement the evaluation plan?"

A.   Spring 2006

Because respondents to the spring 2006 six month questionnaire indicated that time was the barrier that they most frequently encountered, it was determined that a second questionnaire should be administered to the spring 2006 respondents after a period of one year to determine if participants that did not evaluate their programs within

six months of completing the course would begin or complete an evaluation of their program within the extended time period of one year. Twenty –four course participants that completed the six month post course questionnaire also completed the one year post course questionnaire. This section presents the results from both the spring 2006 six month post course questionnaire and the one year post course questionnaire.

Table 31 summarizes the six month results to the multiple choice question, "What was the reason that you did not implement the evaluation plan?" There were eight options provided, including "other," from which the participants could select one or more response. Respondents that selected "other" were asked to provide an explanation in a space provided. The open-ended responses to this item are listed in Appendix F. Respondents that indicated that they had begun the evaluation process were not directed to answer this question. As such, only the 14 respondents, out of the 40 that participated in the survey, who indicated that they had not implemented their evaluation plan were required to respond to this item. An adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 31. No Evaluation Reason Given by Spring 2006 Respondents within Six Months

What was the reason that you did not implement the evaluation plan?	(n = 14)
Time Constraints	57%
No program to evaluate	29%
Insufficient qualified Staff to do Evaluation	21%
Not supported by agency/organization	7%
Money Constraints	0%
Lack of confidence in ability to carry out the evaluation plan	0%
Lack of cooperation by participants	0%
Other	29%

Table 32 summarizes the one year results to the multiple choice question, "What was the reason that you did not implement the evaluation plan?" There were eight options provided, including "other," from which the participants could select one or more response. Respondents that selected "other" were asked to provide an explanation in a space provided. The open-ended responses to this item are listed in Appendix F. Only those respondents that had not begun a program evaluation within both the original six month time period and the total one year time period were directed to answer this question. As such, only the 5 respondents, out of the 24 that participated in the survey, who indicated that they had not implemented their evaluation plan were required to respond to this item. An adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 32. No Evaluation Reason Given by Spring 2006 Respondents within One Year

2. If you answered "No" to item #1, what was the reason that you did not implement the evaluation plan?	(n = 5)
Time Constraints	60%
No program to evaluate	20%
Money Constraints	20%
Insufficient qualified Staff to do Evaluation	20%
Lack of confidence in ability to carry out the evaluation plan	0%
Not supported by agency/organization	0%
Lack of cooperation by participants	0%
Other	60%

B.   Summer 2006

Table 33 summarizes the six month results to the multiple choice question, "What was the reason that you did not implement the evaluation plan?" There were eight options provided, including "other," from which the participants could select one or more response. Respondents that selected "other" were asked to provide an explanation in a space provided. The open-ended responses to this item are listed in Appendix G. Respondents that indicated that they had begun the evaluation process were not directed to answer this question. As such, only the 5 respondents, out of the 8 that participated in the survey, who indicated that they had not implemented their evaluation plan were required to respond to this item. An adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 32. No Evaluation Reason Given by Summer 2006 Respondents

What was the reason that you did not implement the evaluation plan?	(n = 5)
No program to evaluate	60%
Time Constraints	20%
Money Constraints	0%
Insufficient qualified Staff to do Evaluation	0%
Lack of confidence in ability to carry out the evaluation plan	0%
Not supported by agency/organization	0%
Lack of cooperation by participants	0%
Other	100%

C.   Fall 2006

Table 34 summarizes the six month results to the multiple choice question, "What

was the reason that you did not implement the evaluation plan?" There were eight

options provided, including "other," from which the participants could select one or more

response. Respondents that selected "other" were asked to provide an explanation in a

space provided. The open-ended responses to this item are listed in Appendix H.

Respondents that indicated that they had begun the evaluation process were not directed

to answer this question. As such, only the 10 respondents, out of the 17 that participated

in the survey, who indicated that they had not implemented their evaluation plan were

required to respond to this item. An adjusted respondent number (n) was calculated for

this item. Because more than one response was permitted for this item, the frequency of

response totals more than 100%.

Table 33. No Evaluation Reason Given by Fall 2006 Respondents

What was the reason that you did not implement the evaluation plan?	(n = 10)
Time Constraints	70%
Money Constraints	20%
No program to evaluate	10%
Lack of confidence in ability to carry out the evaluation plan	10%
Insufficient qualified Staff to do Evaluation	0%
Not supported by agency/organization	0%
Lack of cooperation by participants	0%
Other	50%

D.   Compiled Results

Table 34 summarizes the six month results to the multiple choice question, "What was the reason that you did not implement the evaluation plan?" There were eight options provided, including "other," from which the participants could select one or more response. Respondents that selected "other" were asked to provide an explanation in a space provided. Respondents that indicated that they had begun the evaluation process were not directed to answer this question. As such, only the 26 respondents, out of the 65 that participated in the survey, who indicated that they had not implemented their evaluation plan were required to respond to this item. An adjusted respondent number (n) was calculated for this item. Because more than one response was permitted for this item, the frequency of response totals more than 100%.

Table 34. No Evaluation Reason (Compiled)

What was the reason that you did not implement the evaluation plan?	(n = 26)
Time Constraints	57%
No program to evaluate	29%
Insufficient qualified Staff to do Evaluation	21%
Not supported by agency/organization	7%
Money Constraints	0%
Lack of confidence in ability to carry out the evaluation plan	0%
Lack of cooperation by participants	0%
Other	29%

VII.   OBJECTIVE SIX

The purpose of objective six was to identify what factors external to the AEEPE course may influence the participants' ability to implement their program evaluation plans after completing the course. To determine what factors external to the AEEPE course may have influenced the participants' ability to implement their program evaluation plans after completing the courses data was collected from the pre-course questionnaire, the course evaluation, and the six month post course questionnaire about the respondents' work situation, experience with evaluation, motivation for enrolling in the AEEPE course and the factors that limited their ability to evaluate a program previous to the course and within six months of completing the course. These variables were analyzed in relation to whether the course participants evaluated their programs within six months of completing the course. Because not all of the respondents provided a response for every item, an adjusted respondent number (n) was calculated for each item. The frequency of some responses may total more than 100% because more than one response was permitted for some of the items.

A. Compiled Results

Figure 27 graphically depicts the relationship between the respondents' occupations at the time that they were enrolled in the AEEPE course and whether or not they evaluated their program within six months of completing the course.

Figure 27. Relationship of Occupation to Evaluation (Compiled)
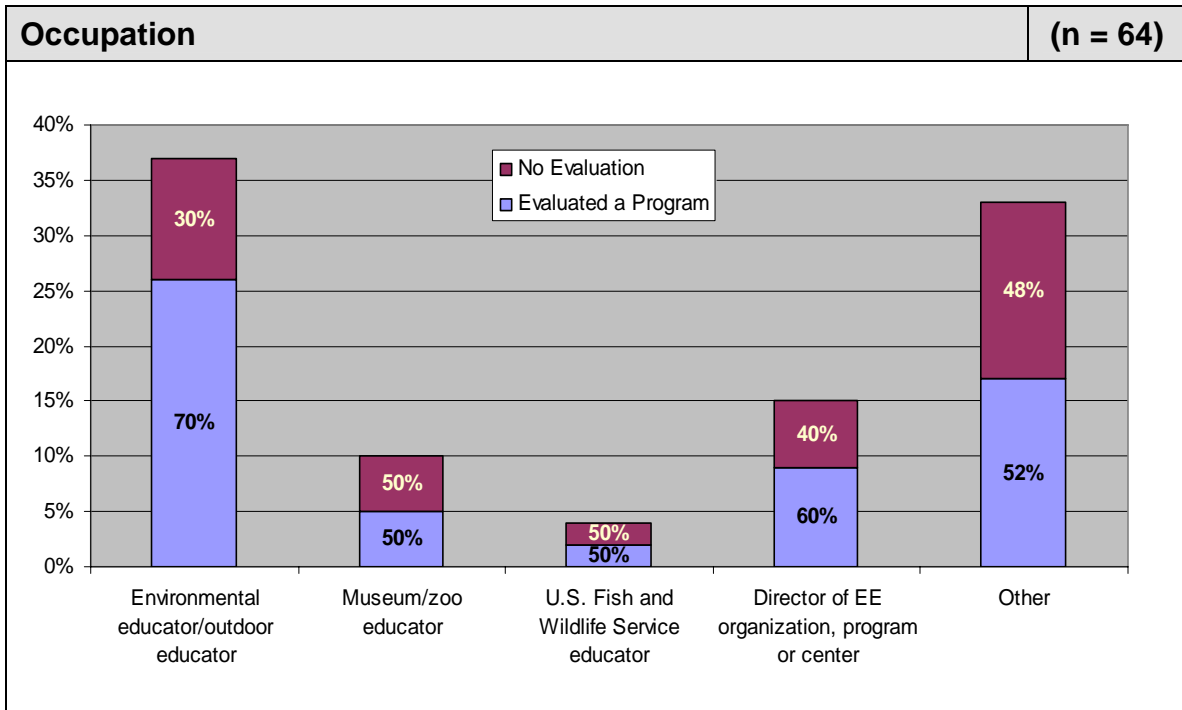
Figure 58 graphically depicts the relationship between the respondents' years employed in their position prior to beginning the course to whether or not they evaluated a program within six months of completing the AEEPE course.

Figure 28. Relationship of Years in Position to Evaluation (Compiled)
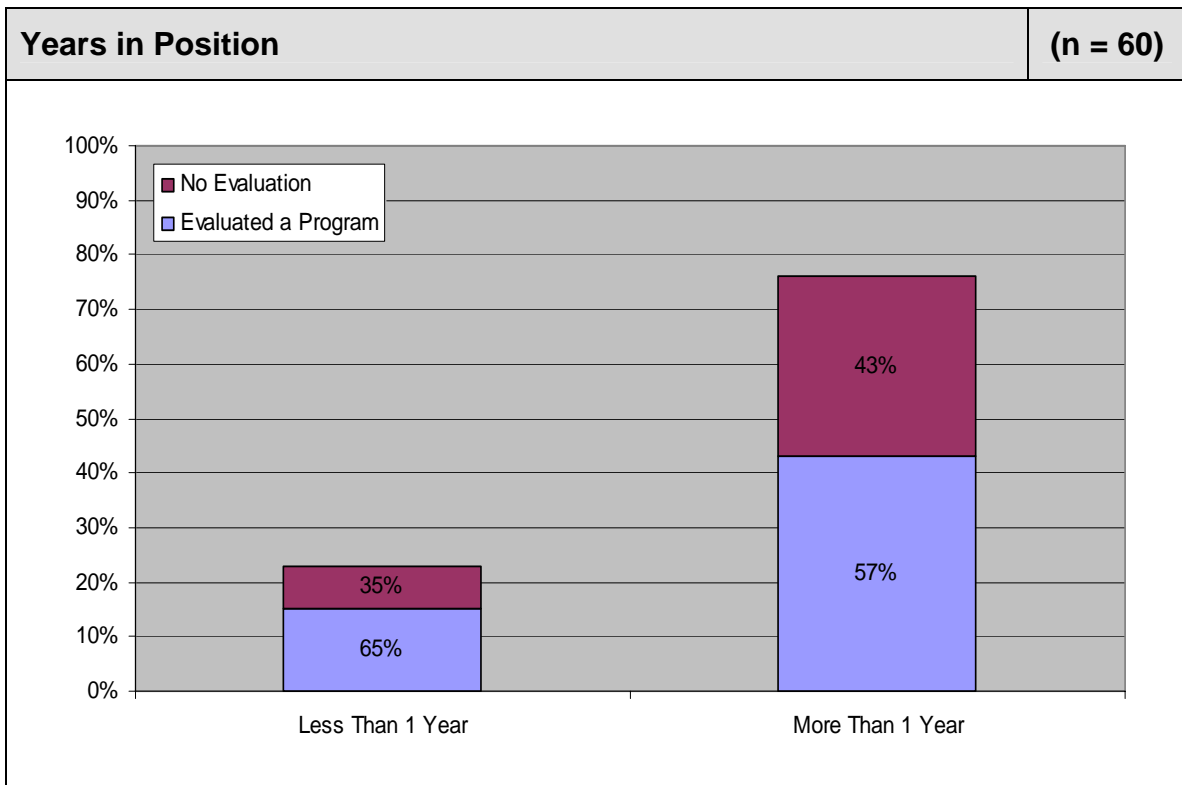
Figure 29 graphically depicts the relationship between whether the respondents changed positions between the time that they completed the course and the time that they completed the six month questionnaire and whether or not they evaluated a program within six months of completing the AEEPE course.

Figure 29. Relationship of Job Continuity to Evaluation (Compiled)
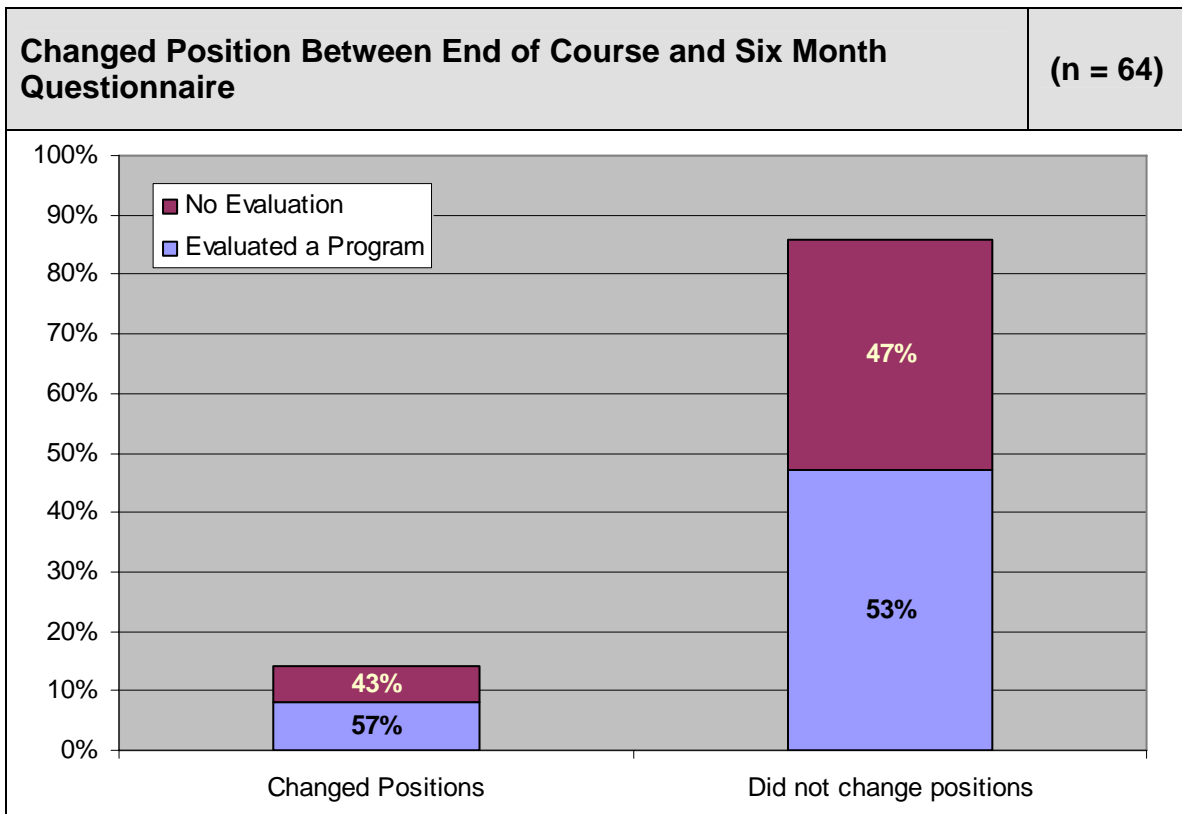
Figure 30 graphically depicts the relationship between the respondents' years of
experiences in evaluation prior to beginning the course and whether or not they evaluated
a program within six months of completing the AEEPE course.

**Figure 30. Relationship of Evaluation Experience Previous to Course to Evaluation
Post Course (Compiled)**
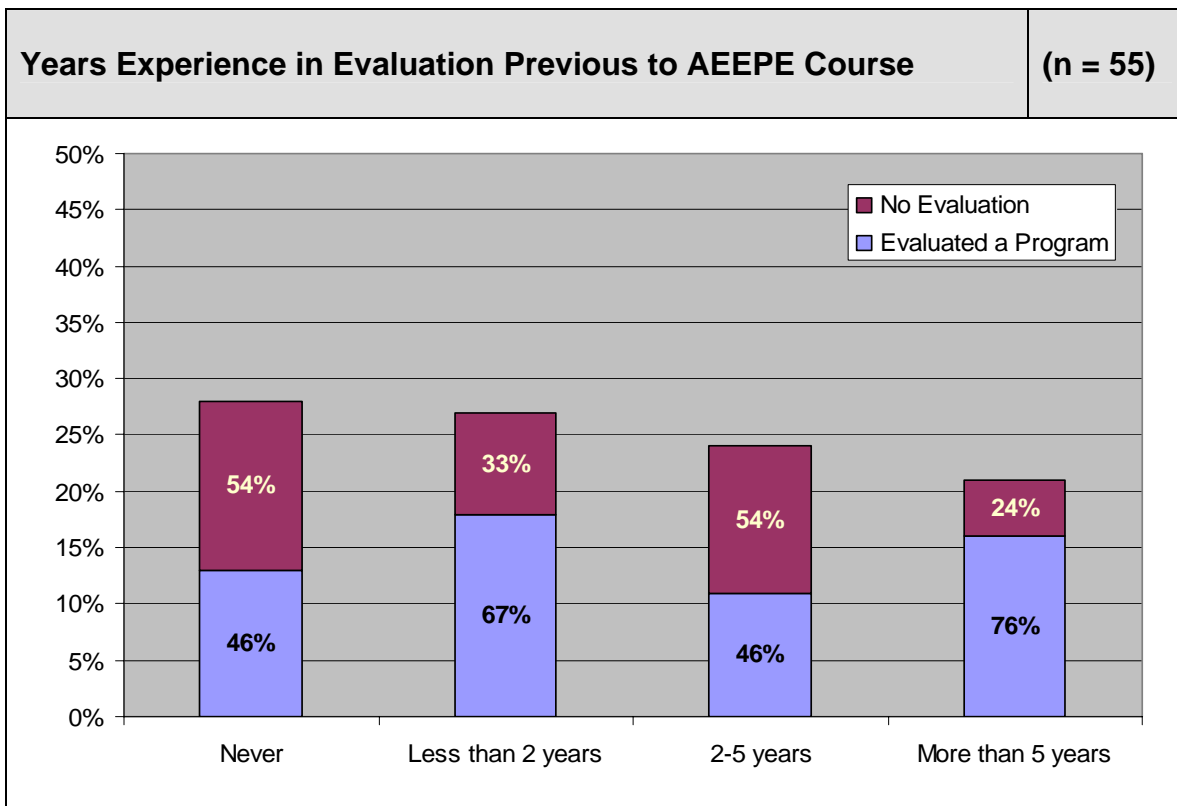
Figure 31 graphically depicts the relationship between whether the respondents'
were evaluating a program at the start of the course and whether or not they evaluated a
program within six months of completing the AEEPE course.

**Figure 31. Relationship of Evaluation Previous to Course to Evaluation Post Course
(Compiled)**
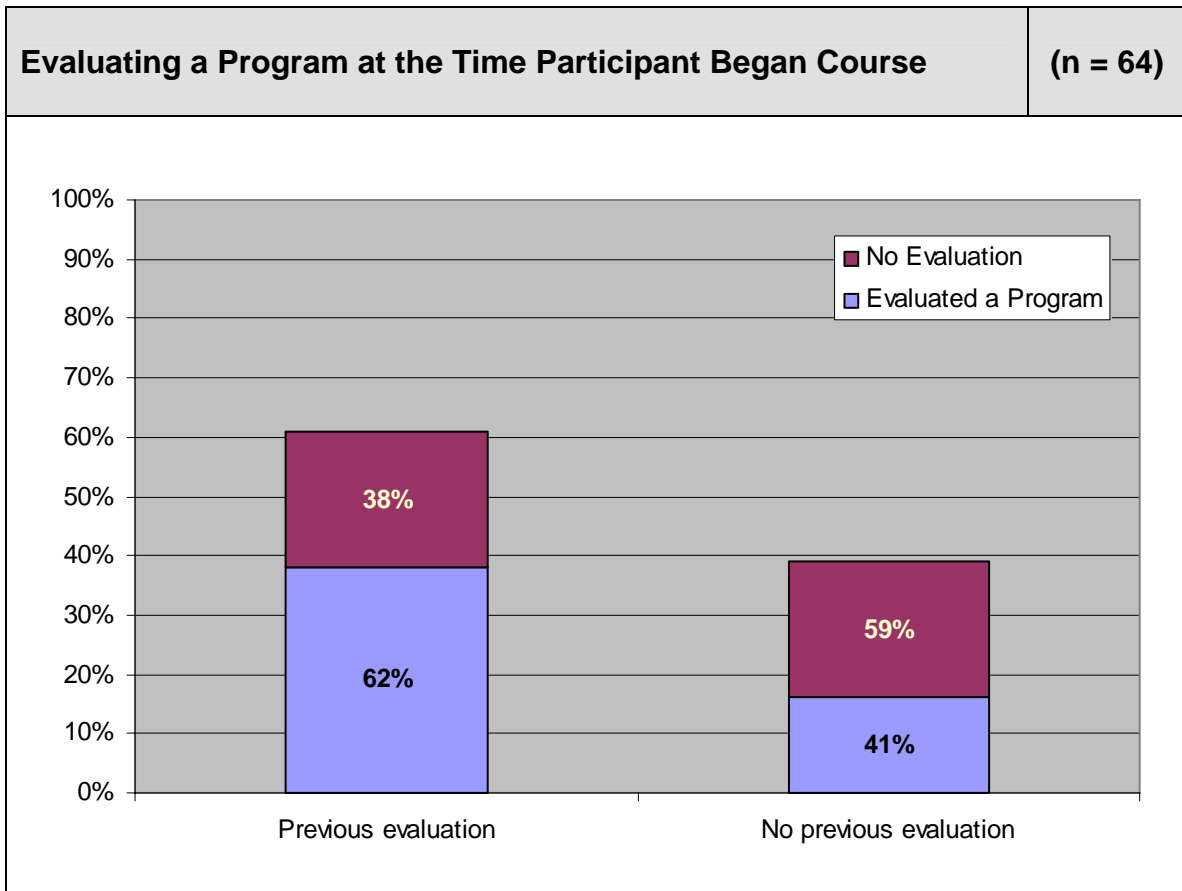
Figure 32 graphically depicts the relationship between whether the respondents'
are required to evaluate a program as part of their job and whether or not they evaluated a
program within six months of completing the AEEPE course.

Figure 32. Relationship of Required Evaluation to Evaluation (Compiled)
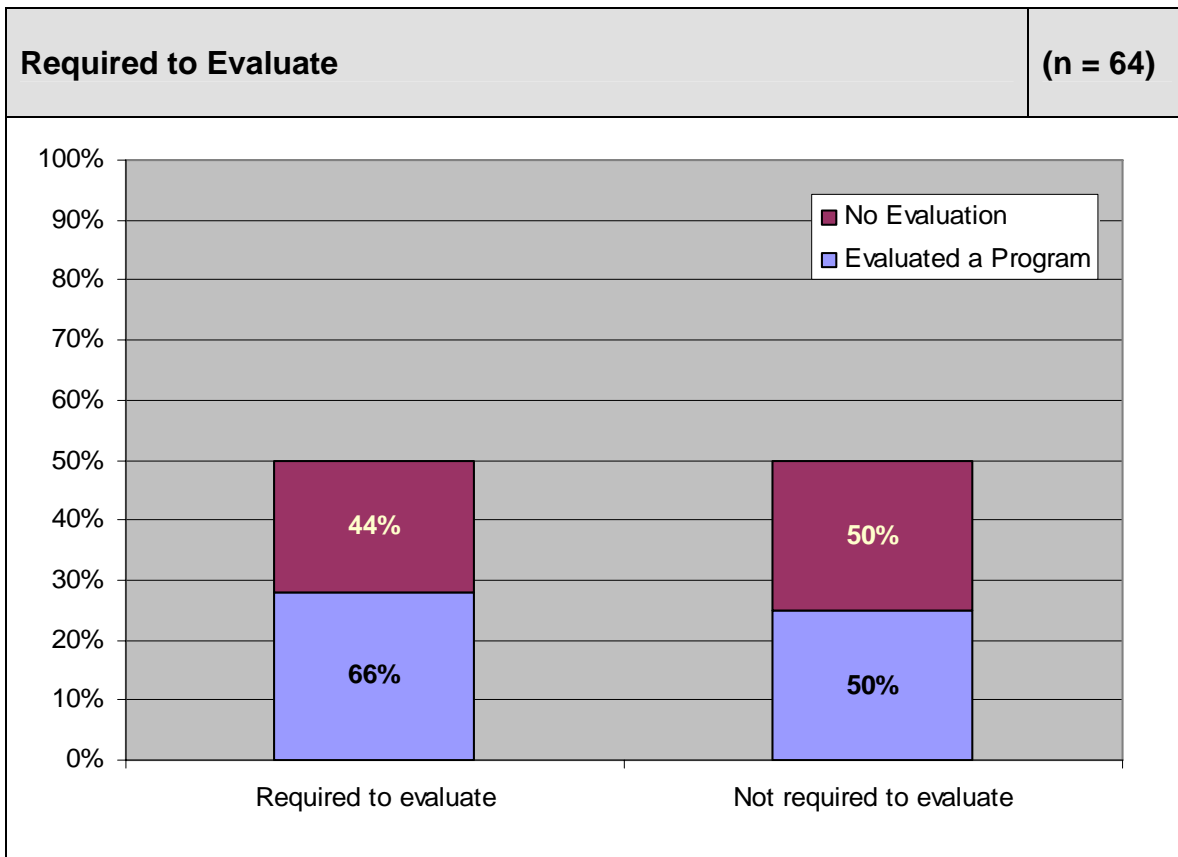
Figure 33 graphically depicts the relationship between the respondents' motivation for learning about program evaluation and whether or not they evaluated a program within six months of completing the AEEPE course.

Figure 33. Relationship of Participant Motivation to Evaluation (Compiled)

Motivation(s) for Learning about Program Evaluation	(n = 63)
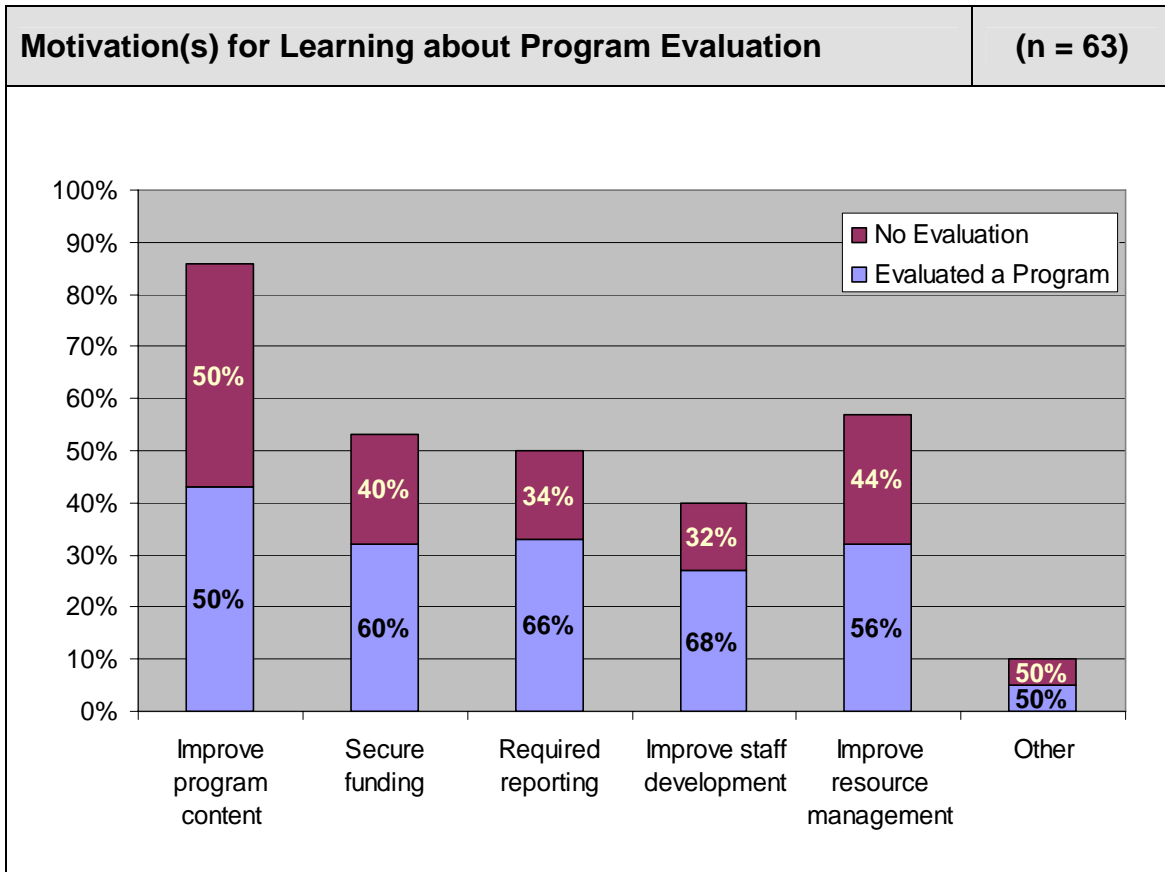
Figure 34 graphically depicts the relationship between the factors that limited the respondents' ability to evaluate a program prior to beginning the AEEPE course and whether or not they evaluated a program within six months of completing the AEEPE course.

Figure 34. Relationship of Previous Liming Factors to Evaluation (Compiled)

Factor Limiting Program Evaluation Previous to AEEPE Course	(n = 61)
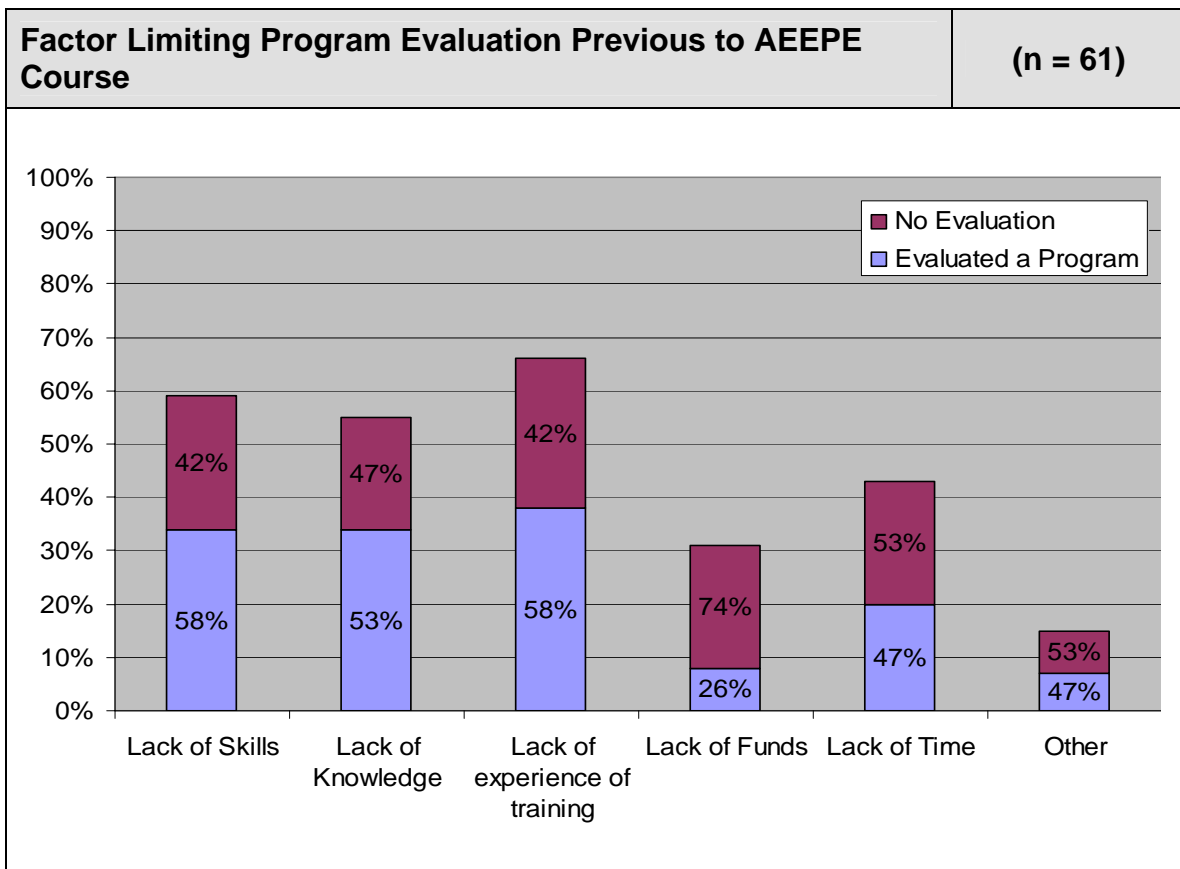
Figure 35 graphically depicts the relationship between the factors that limited the respondents' ability to evaluate a program after completing the AEEPE course.

Figure 35. Relationship of Previous Liming Factors to Evaluation (Compiled)
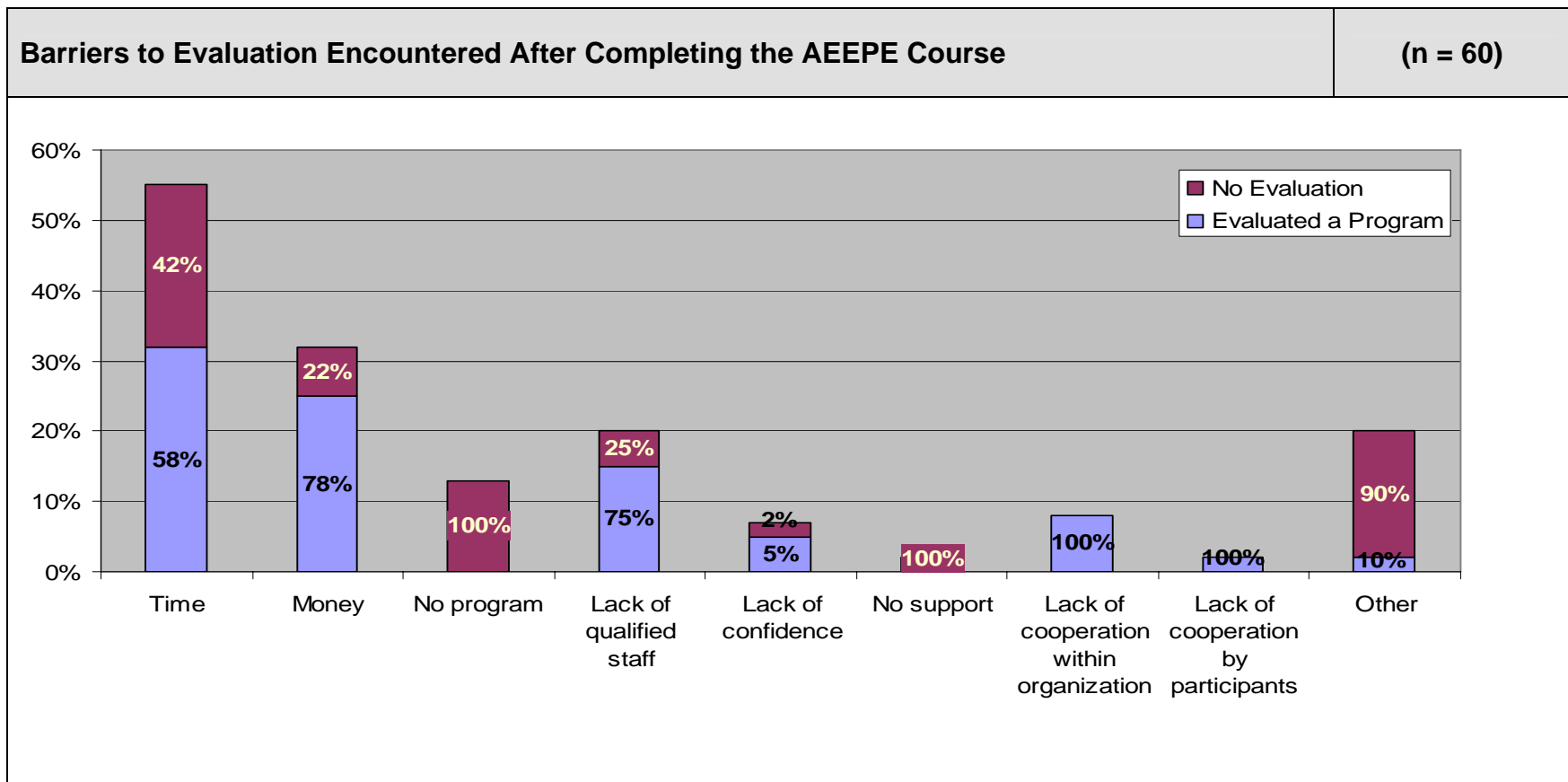
VIII. OBJECTIVE SEVEN

The purpose of objective seven was to evaluate the extent to which the AEEPE course provided the course participants with the knowledge and skills needed to conduct a program evaluation. To determine the extent to which the AEEPE course provided the course participants with the knowledge and skills needed to conduct a program evaluation, the respondents were asked in both the course evaluation and in the six month post course questionnaire to indicate the extent to which they agreed or disagreed to two statements, "I have increased my knowledge of environmental education program evaluation as a result of taking this course," and "I have increased my skills in conducting an evaluation of an environmental education program as a result of taking this course." The results from these two items were compared to determine whether the participants' confidence in their knowledge and skills in evaluation increased or decreased within the six months following the course. Additionally, the respondents were asked whether there were any aspects of the evaluation process that they were unprepared for and whether they planned to evaluate a program in the future.

A.   Spring 2006

Table 35 summarizes the results of the two Likert scale items from the spring 2006 six month post course questionnaire. The items were scored using the following ordered –choice response categories: 5=Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree, 1=Strongly Disagree. A mean score was calculated for each of the items based on a 5 point scale.

Table 35. Mean Scores of Perceived Knowledge and Skills by Spring 2006

Respondents

To what extent do you agree or disagree with the following statements…..	Course Evaluation Mean Score (n = 33)	6 Month Questionnaire Mean Score (n = 33)
1. I have increased my knowledge of environmental education program evaluation as a result of taking this course.	4.71	4.79
2. I have increased my skills in conducting an evaluation of an environmental education program as a result of taking this course.	4.62	4.53

The mean scores for both items were greater than 4.00, coinciding with the

strongly agree to agree ordered choice responses.

Figure 36 graphically illustrates the frequency of participant agreement to the Likert scale item, "I have increased my knowledge of environmental education program evaluation as a result of taking this course" at the end of the spring 2006 AEEPE course and six month after completing the course.

Figure 36. Perceived Knowledge of Spring 2006 Respondents

I have increased my knowledge of environmental education program evaluation as a result of taking this course.	(n = 34)
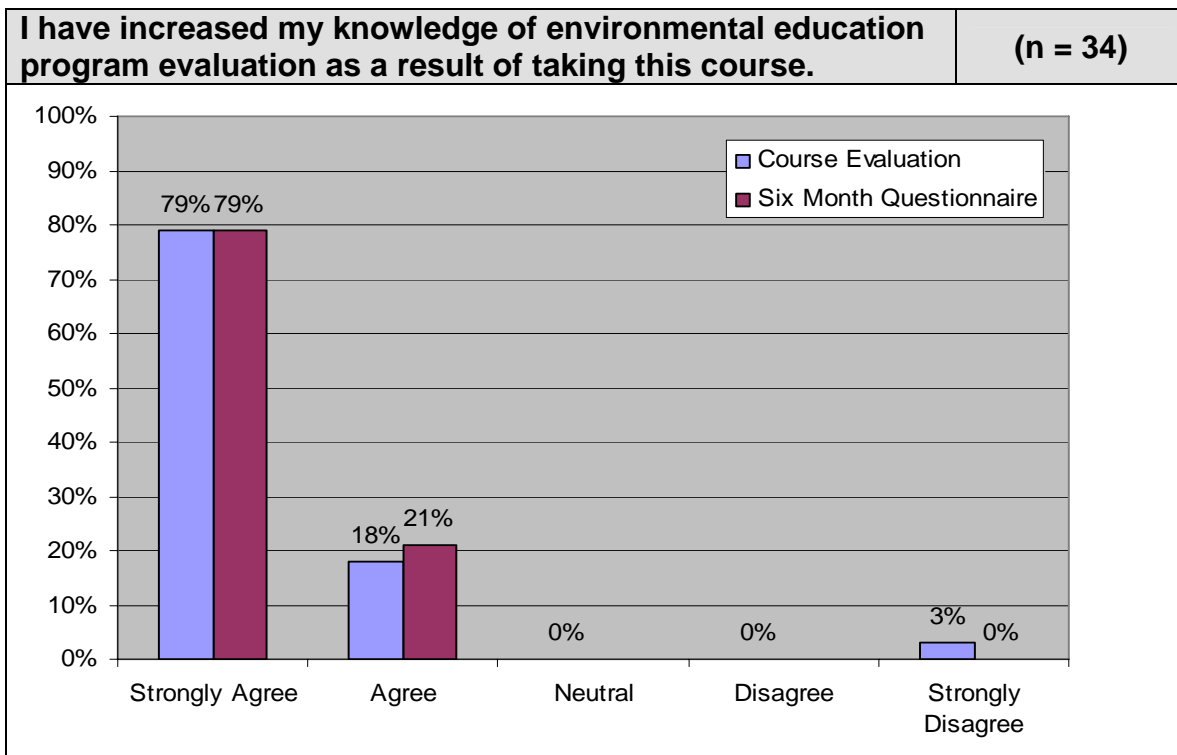
Figure 37 graphically illustrates the frequency of participant agreement to the Likert scale item, "I have increased my skills in conducting an evaluation of an environmental education program as a result of taking this course" at the end of the spring 2006 AEEPE course and six month after completing the course.

Figure 37. Perceived Skills of Spring 2006 Respondents

I have increased my skills in conducting an evaluation of an environmental education program as a result of taking this course.	(n = 34)
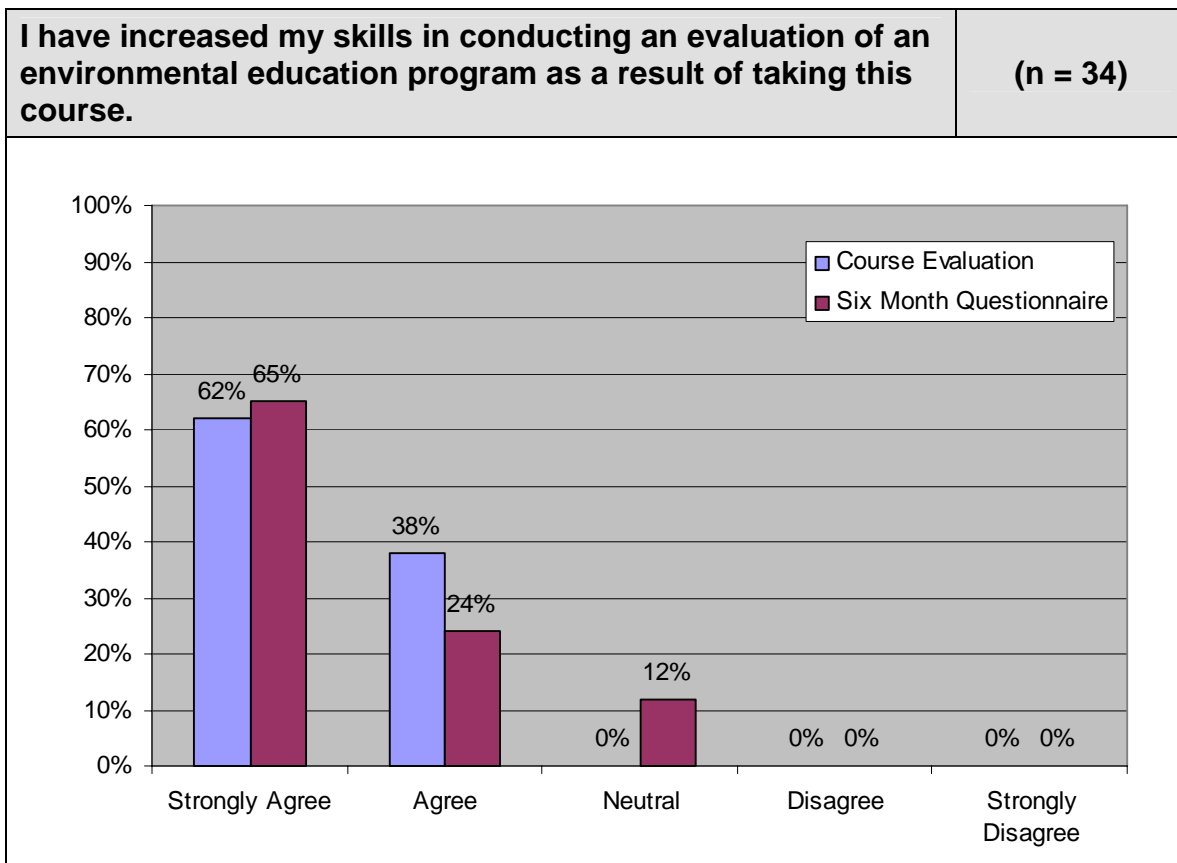
Figure 38 graphically illustrates the frequency of spring 2006 participant response to the Yes/No question, "During the evaluation development and implementation process, was there any aspect of the process that you felt you were unprepared for?"

Figure 38. Frequency of Spring 2006 Respondents Who Felt Prepared for Evaluation

During the evaluation development and implementation process, was there any aspect of the process that you felt you were unprepared for?	(n = 23)
Yes	30%
No	70%
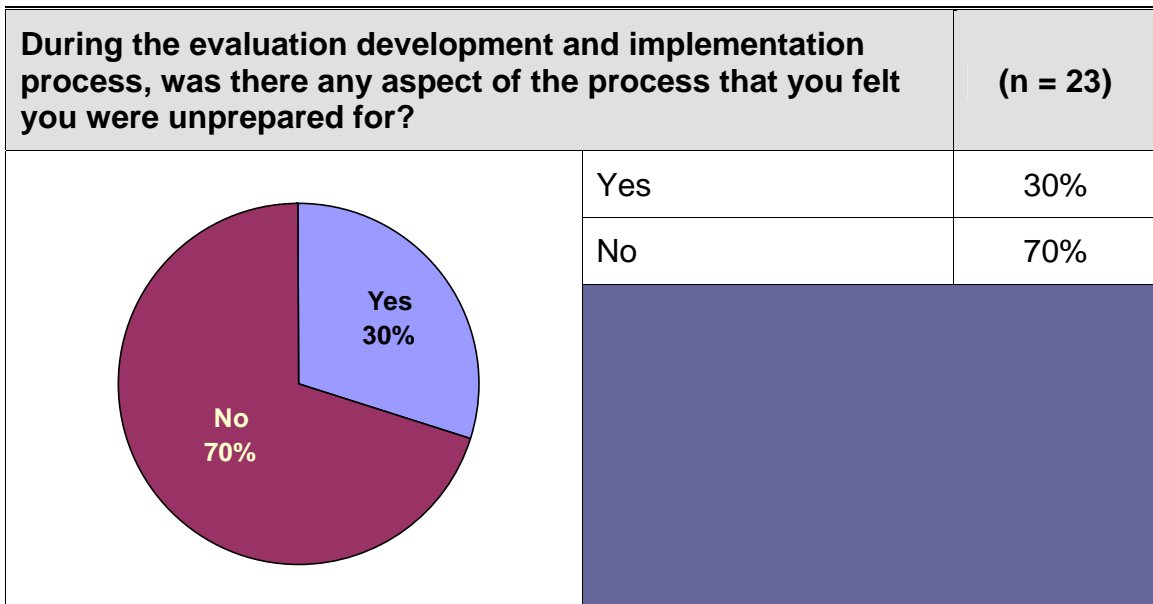
Figure 39 graphically illustrates the frequency of spring 2006 participant response to the Yes/No question, "Do you plan to (continue to) evaluate your program(s) in the future?"

Figure 39. Frequency of Spring 2006 Respondents Who Plan to Continue to Use Evaluation

Do you plan to (continue to) evaluate your program(s) in the future?	(n = 34)
Yes	97%
No	3%
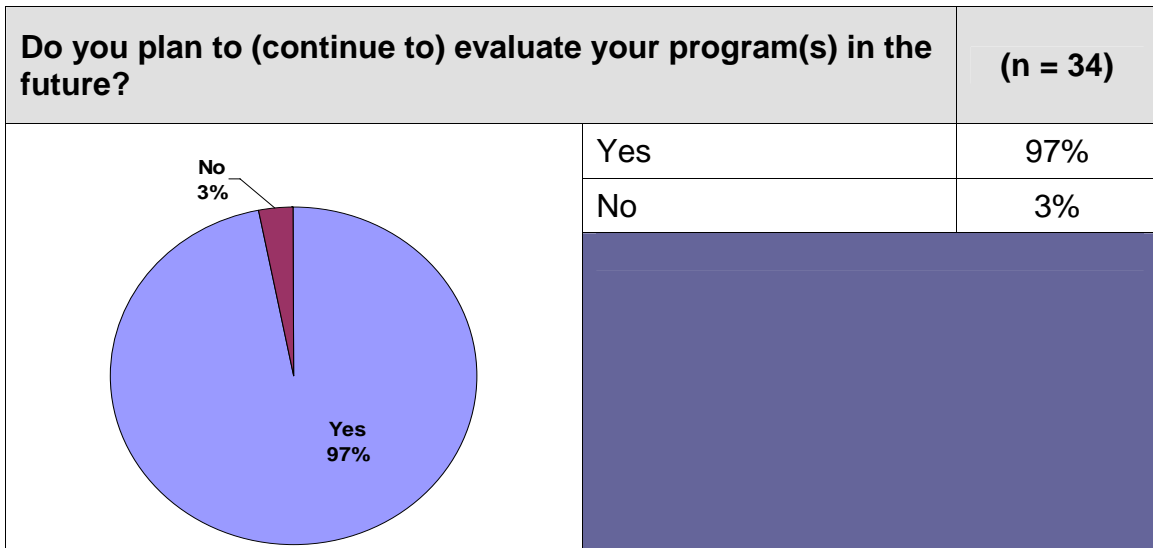
B.   Summer 2006

Table 36 summarizes the results of the two Likert scale items from the spring 2006 six month post course questionnaire. The items were scored using the following ordered –choice response categories: 5=Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree, 1=Strongly Disagree. A mean score was calculated for each of the items based on a 5 point scale.

Table 36. Mean Scores of Perceived Knowledge and Skills by Summer 2006 Respondents

To what extent do you agree or disagree with the following statements…..	Course Evaluation Mean Score (n = 7)	6 Month Questionnaire Mean Score (n = 7)
1. I have increased my knowledge of environmental education program evaluation as a result of taking this course.	4.86	4.86
2. I have increased my skills in conducting an evaluation of an environmental education program as a result of taking this course.	4.86	4.71

Figure 40 graphically illustrates the frequency of participant agreement to the

Likert scale item, "I have increased my knowledge of environmental education program

evaluation as a result of taking this course" at the end of the summer 2006 AEEPE course

and six month after completing the course.

Figure 40. Perceived Knowledge of Summer 2006 Respondents

I have increased my knowledge of environmental education program evaluation as a result of taking this course.	(n = 7)
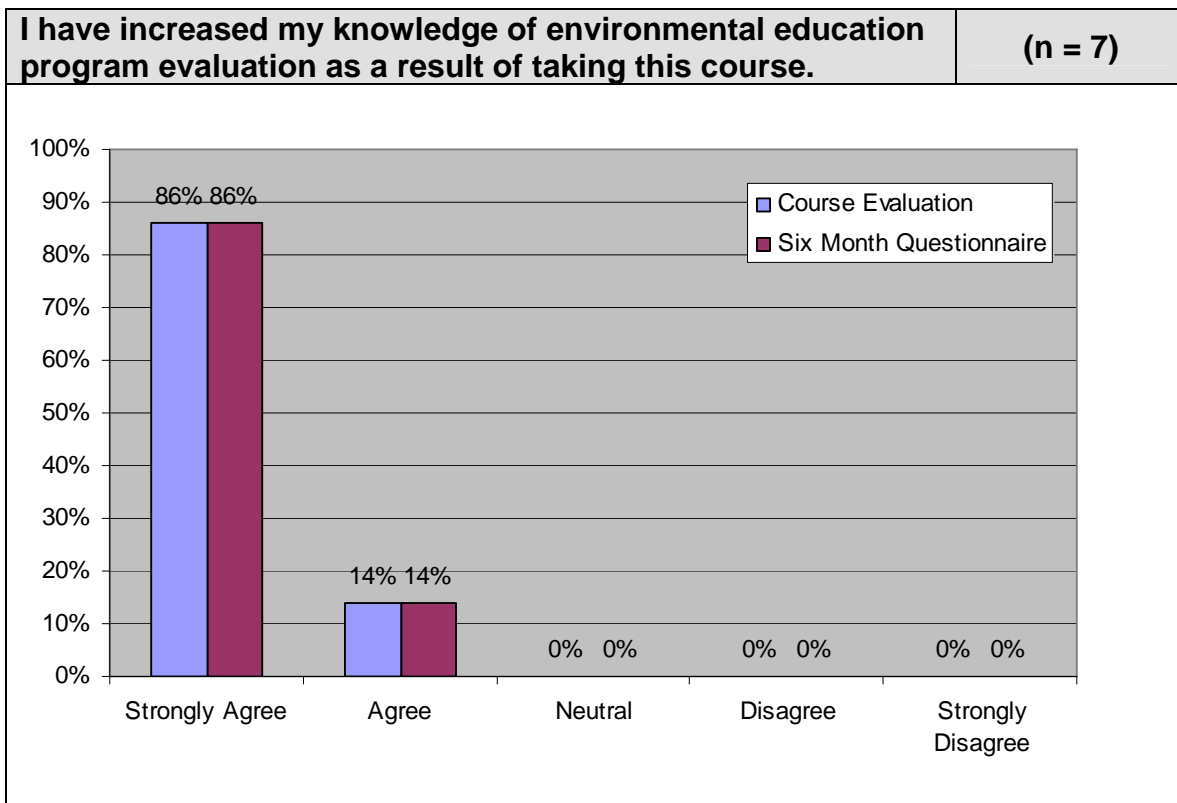
Figure 41 graphically illustrates the frequency of participant agreement to the

Likert scale item, "I have increased my skills in conducting an evaluation of an

environmental education program as a result of taking this course" at the end of the

summer 2006 AEEPE course and six month after completing the course.

Figure 41. Perceived Skills of Summer 2006 Respondents

I have increased my skills in conducting an evaluation of an environmental education program as a result of taking this course.	(n = 15)
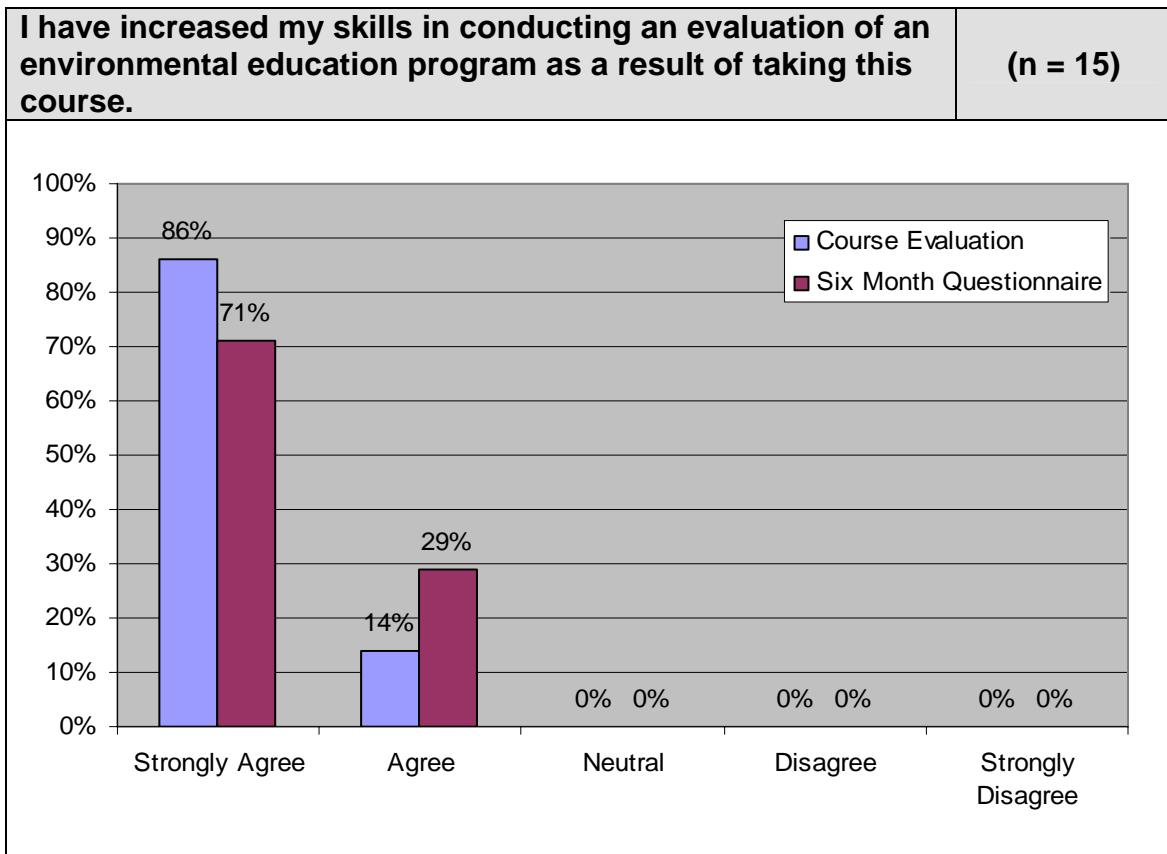
Figure 42 graphically illustrates the frequency of summer 2006 participant

responses to the Yes/No question, "During the evaluation development and

implementation process, was there any aspect of the process that you felt you were

unprepared for?"

Figure 42. Frequency of Summer 2006 Respondents Who Felt Prepared for Evaluation

During the evaluation development and implementation process, was there any aspect of the process that you felt you were unprepared for?	(n = 3)
Yes	33%
No	67%
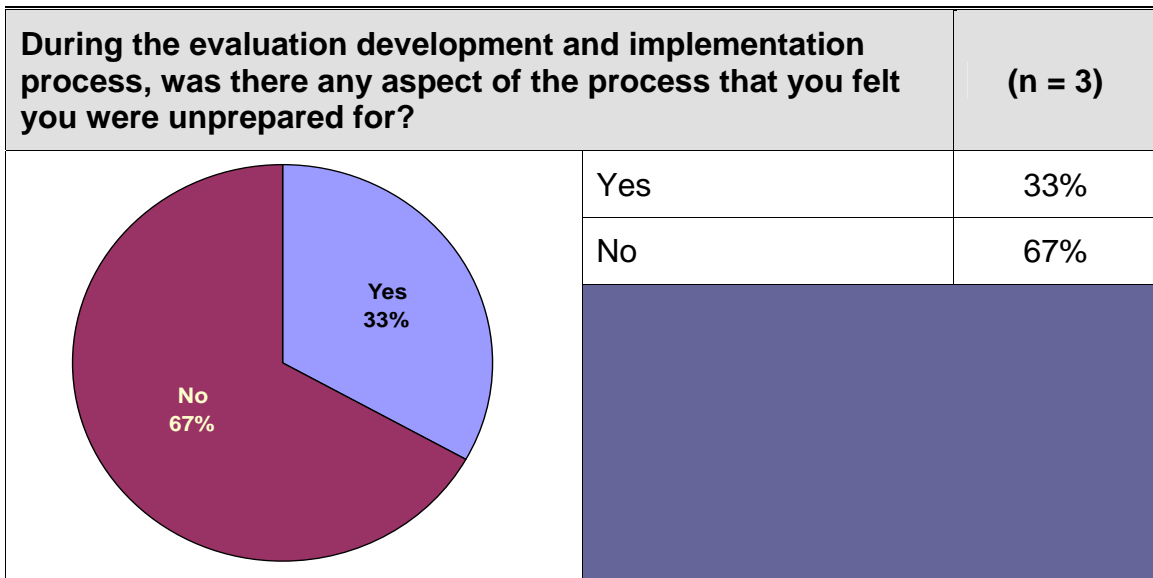
Figure 43 graphically illustrates the frequency of summer 2006 participant response to the Yes/No question, "Do you plan to (continue to) evaluate your program(s) in the future?"

Figure 43. Frequency of Summer 2006 Respondents Who Plan to Continue to Use Evaluation

Do you plan to (continue to) evaluate your program(s) in the future?	(n = 8)	
	Yes	100%
	No	0%

Yes
100%
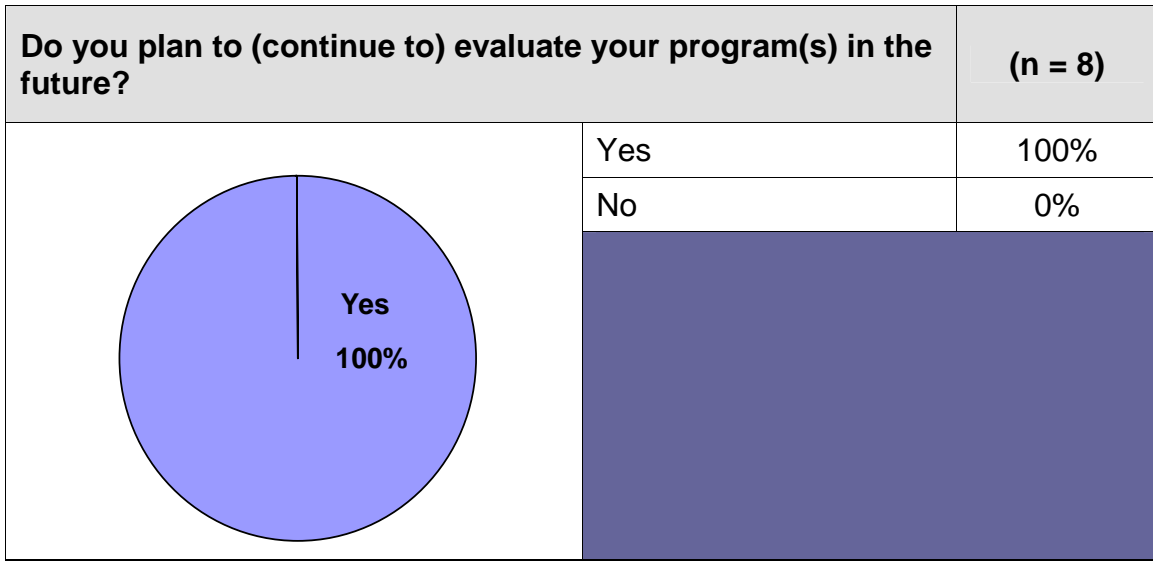
C.   **Fall 2006**

Table 37 summarizes the results of the two Likert scale items from the spring

2006 six month post course questionnaire. The items were scored using the following

ordered –choice response categories: 5=Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree,

1=Strongly Disagree. A mean score was calculated for each of the items based on a 5

point scale.

Table 37. Mean Scores of Perceived Knowledge and Skills by Fall 2006 Respondents

To what extent do you agree or disagree with the following statements…..	Course Evaluation Mean Score (n = 15)	6 Month Questionnaire Mean Score (n = 15)
1. I have increased my knowledge of environmental education program evaluation as a result of taking this course.	4.67	4.60
2. I have increased my skills in conducting an evaluation of an environmental education program as a result of taking this course.	4.47	4.33

Figure 44 graphically illustrates the frequency of participant agreement to the Likert scale item, "I have increased my knowledge of environmental education program evaluation as a result of taking this course" at the end of the fall 2006 AEEPE course and six month after completing the course.

Figure 44. Perceived Knowledge of Fall 2006 Respondents

151
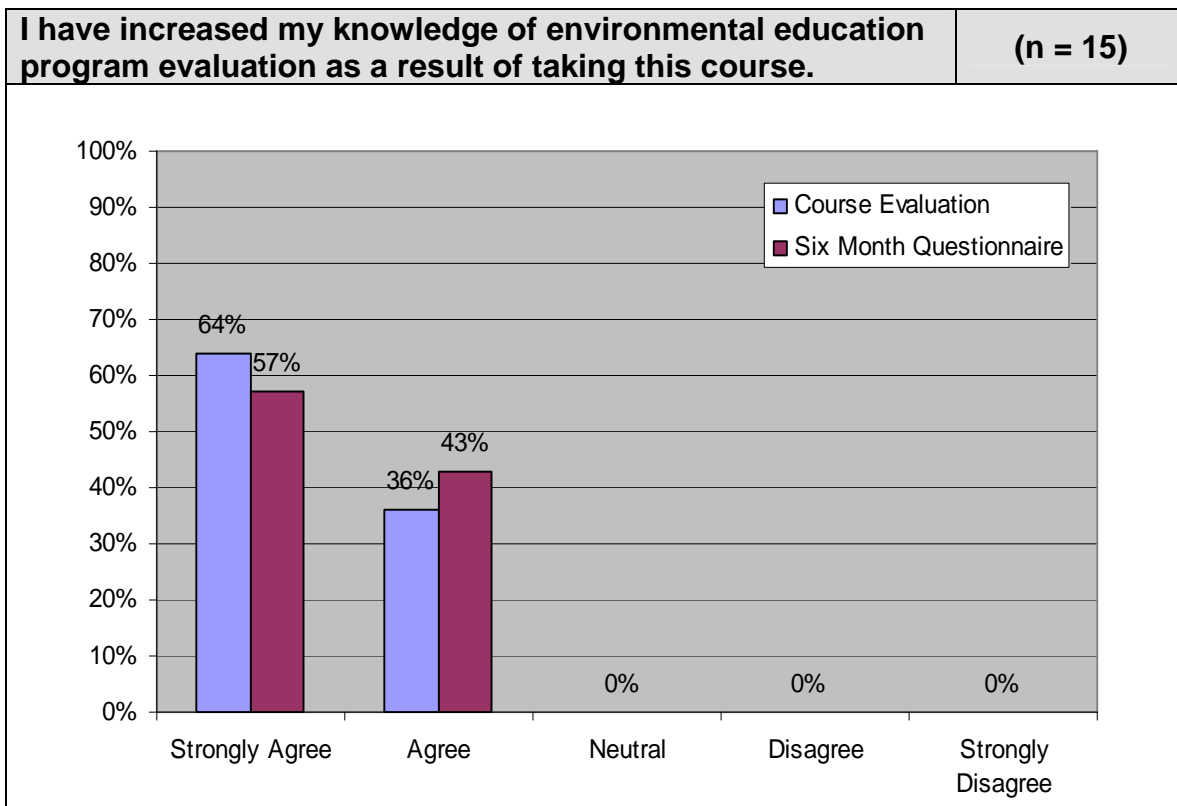
Figure 45 graphically illustrates the frequency of participant agreement to the

Likert scale item, "I have increased my skills in conducting an evaluation of an

environmental education program as a result of taking this course" at the end of the fall

2006 AEEPE course and six months after completing the course.

Figure 45. Perceived Skills of Fall 2006 Respondents

I have increased my skills in conducting an evaluation of an environmental education program as a result of taking this course.	(n = 15)
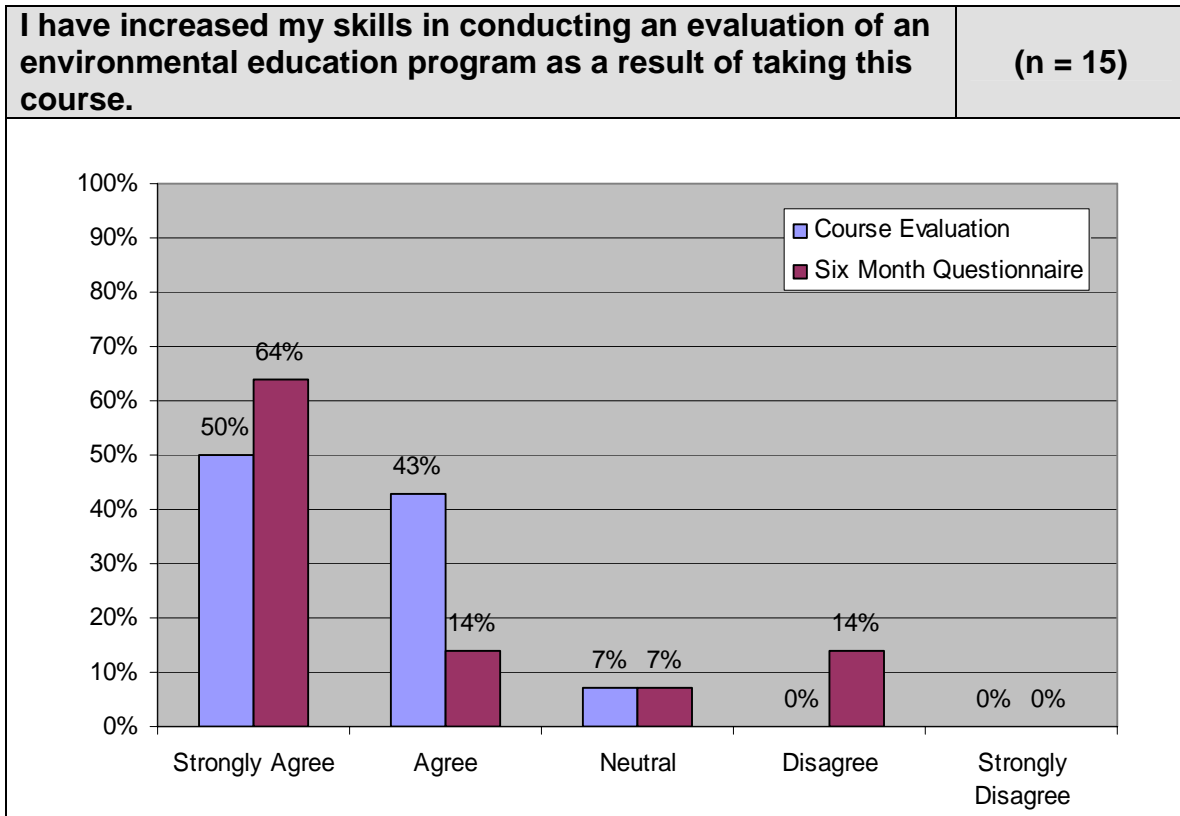
Figure 46 graphically illustrates the frequency of fall 2006 participant response to the Yes/No question, "During the evaluation development and implementation process, was there any aspect of the process that you felt you were unprepared for?"

Figure 46. Frequency of Fall 2006 Respondents Who Felt Prepared for Evaluation

During the evaluation development and implementation process, was there any aspect of the process that you felt you were unprepared for?	(n = 7)
Yes	29%
No	71%
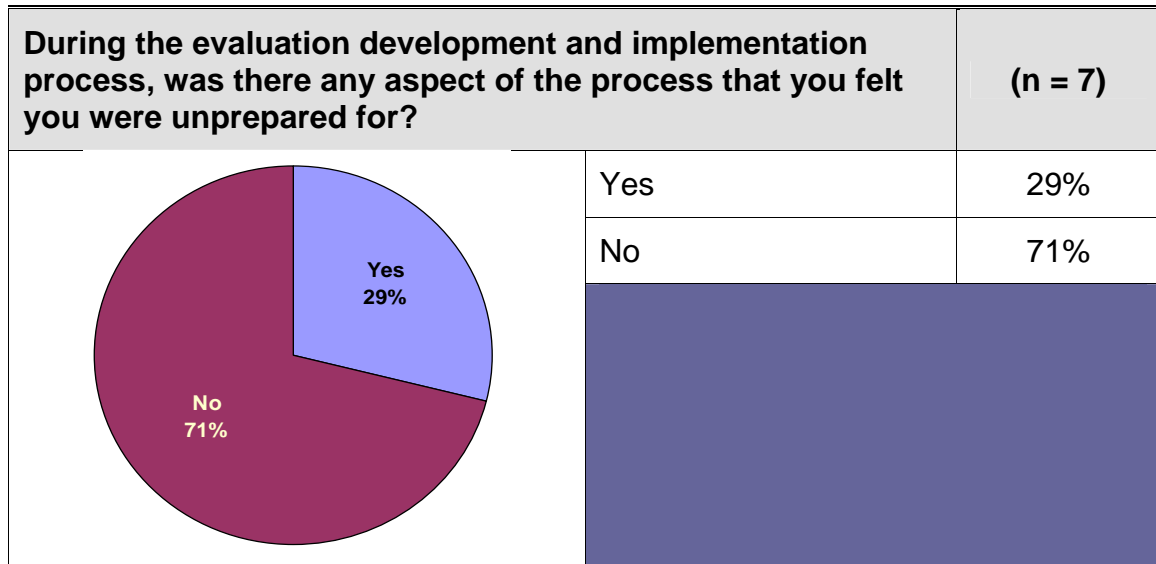
Figure 47 graphically illustrates the frequency of Fall 2006 participant response to the Yes/No question, "Do you plan to (continue to) evaluate your program(s) in the future?"

Figure 47. Frequency of Fall 2006 Respondents Who Plan to Continue to Use Evaluation

Do you plan to (continue to) evaluate your program(s) in the future?		(n = 16)
	Yes	100%
	No	0%

Yes
100%
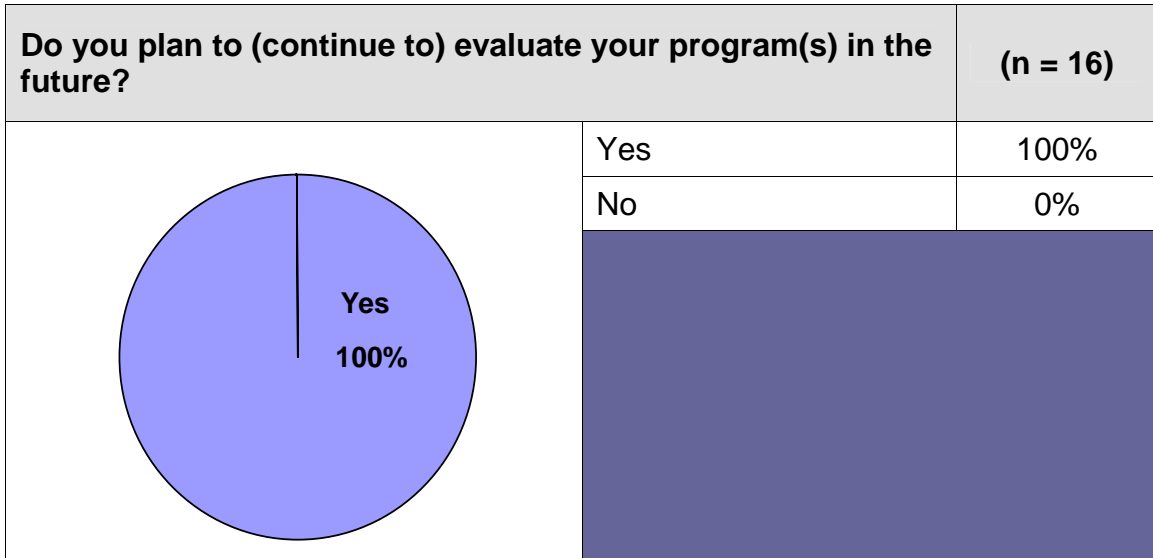
D.   Compiled

Table 38 summarizes the results of the two Likert scale items from the spring

2006 six month post course questionnaire. The items were scored using the following

ordered –choice response categories: 5=Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree,

1=Strongly Disagree. A mean score was calculated for each of the items based on a 5

point scale.

**Table 38. Mean Scores of Perceived Knowledge and Skills by Spring 2006
Respondents (Compiled)**

To what extent do you agree or disagree with the following statements…..	Course Evaluation Mean Score (n = 56)	6 Month Questionnaire Mean Score (n = 56)
1. I have increased my knowledge of environmental education program evaluation as a result of taking this course.	4.71	4.75
2. I have increased my skills in conducting an evaluation of an environmental education program as a result of taking this course.	4.61	4.50

Figure 48 graphically illustrates the frequency of participant agreement to the Likert scale item, "I have increased my knowledge of environmental education program evaluation as a result of taking this course" at the end of the AEEPE course and six month after completing the course.

Figure 48. Perceived Knowledge of Respondents (Compiled)

I have increased my knowledge of environmental education program evaluation as a result of taking this course.	(n = 56)
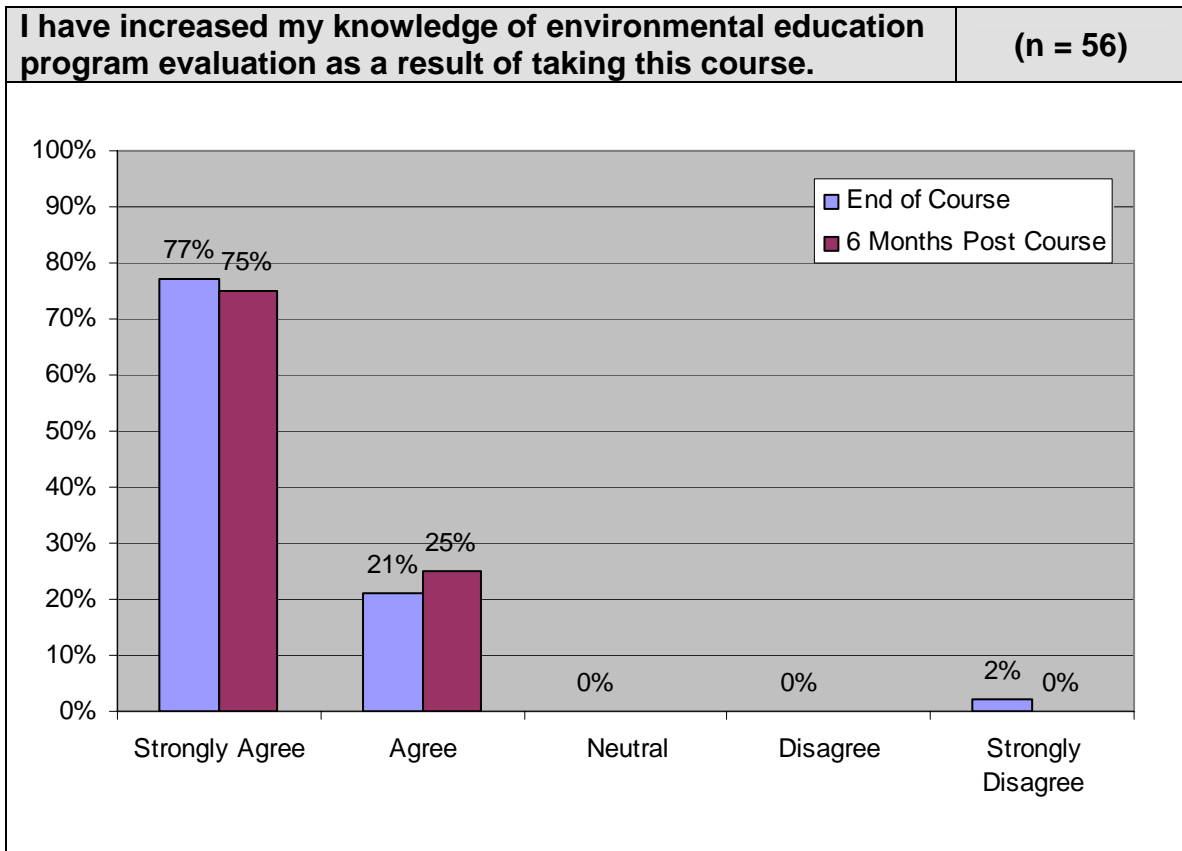
Figure 49 graphically illustrates the frequency of participant agreement to the

Likert scale item, "I have increased my skills in conducting an evaluation of an

environmental education program as a result of taking this course" at the end of the

AEEPE course and six month after completing the course.

Figure 49. Perceived Skills of Respondents (Compiled)

I have increased my skills in conducting an evaluation of an environmental education program as a result of taking this course.	(n = 56)
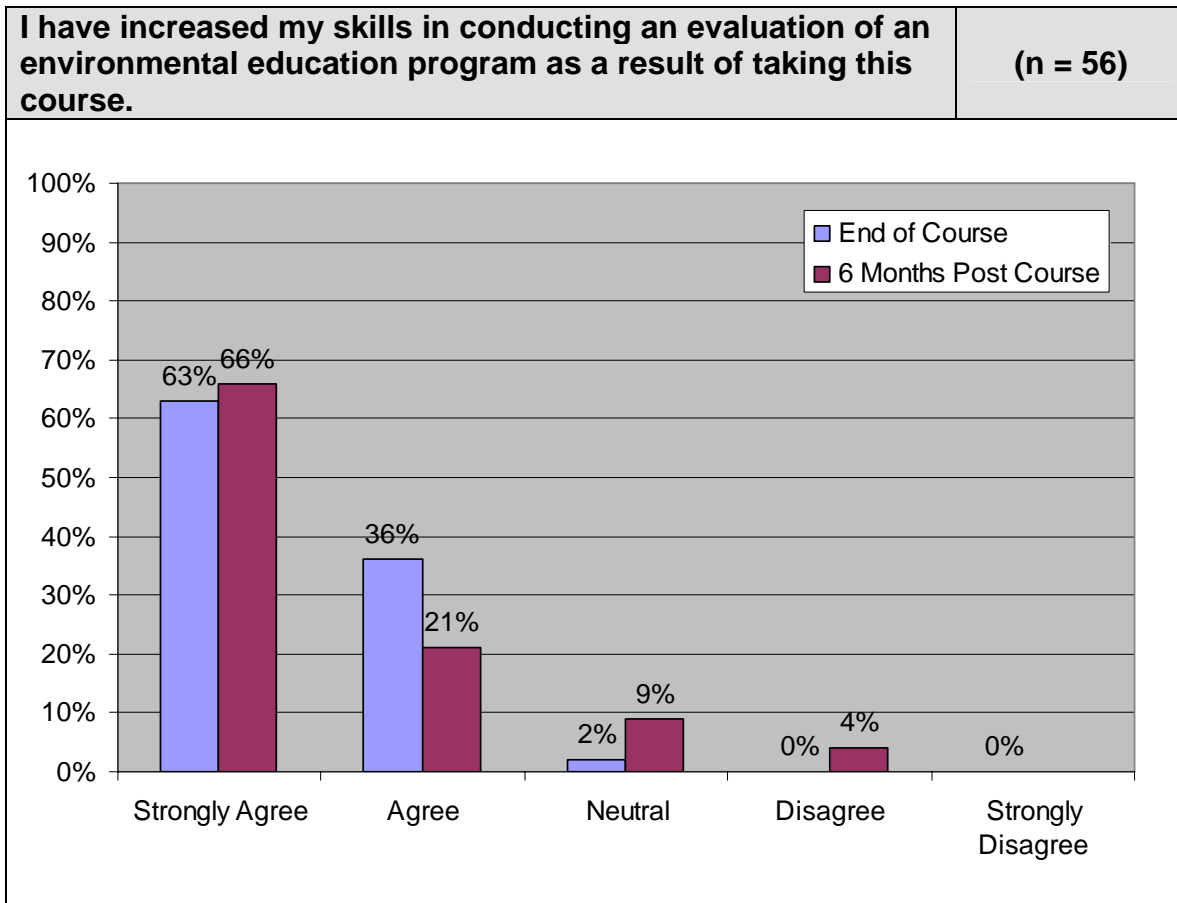
Figure 50 graphically illustrates the frequency participant response to the Yes/No question, "During the evaluation development and implementation process, was there any aspect of the process that you felt you were unprepared for?"

Figure 50. Frequency of Respondents Who Felt Prepared for Evaluation (Compiled)

During the evaluation development and implementation process, was there any aspect of the process that you felt you were unprepared for?	(n = 33)
Yes	33%
No	67%
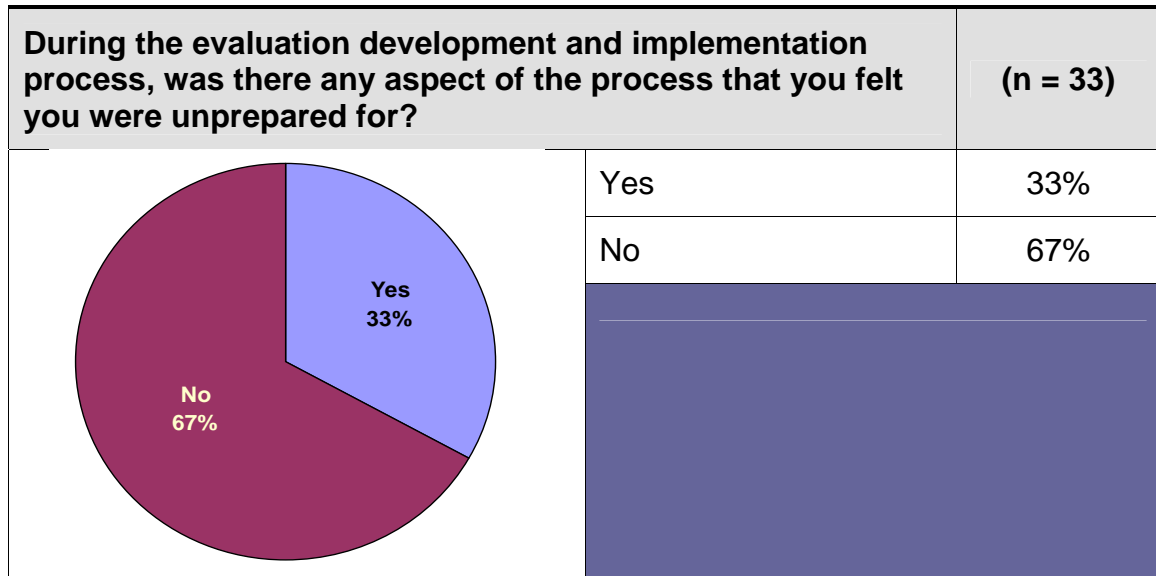
Figure 51 graphically illustrates the frequency of participant response to the Yes/No question, "Do you plan to (continue to) evaluate your program(s) in the future?"

Figure 51. Frequency of Respondents Who Plan to Continue to Use Evaluation (Compiled)

Do you plan to (continue to) evaluate your program(s) in the future?	(n = 61)
Yes	98%
No	2%

Do Not Intend to Evaluate in Future 2%

Plan to Evaluate in Future 98%
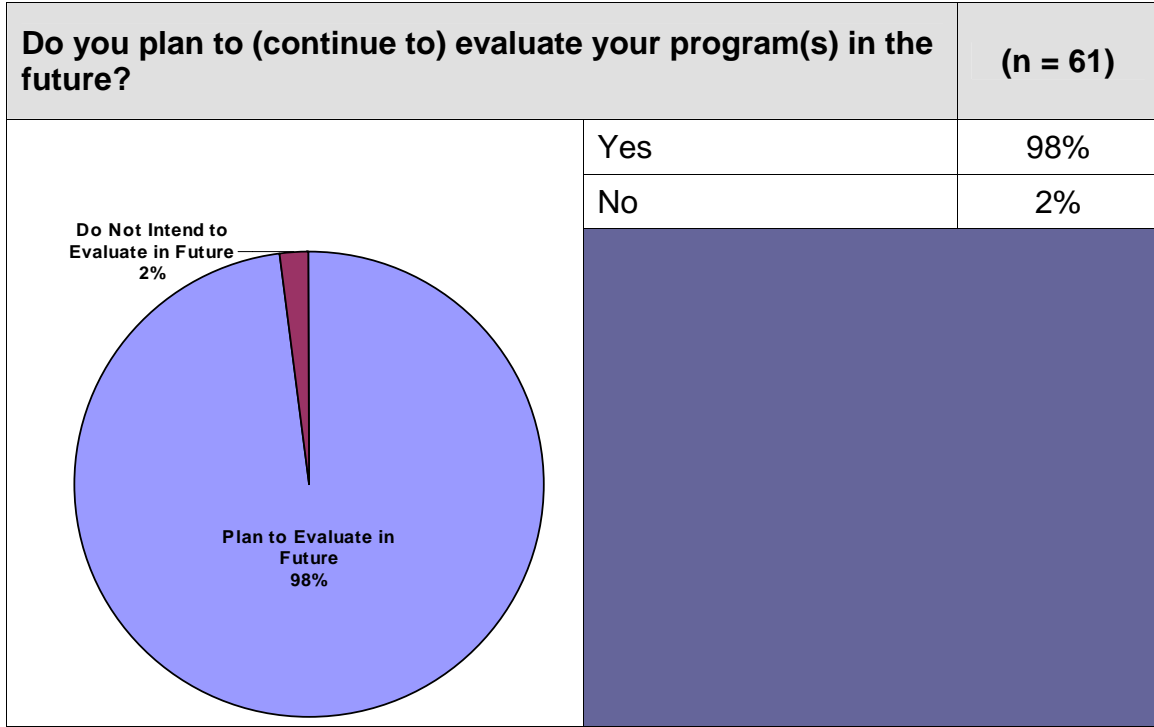
IX.   OBJECTIVE EIGHT

The purpose of objective eight was to provide recommendations for how the AEEPE course can be improved.   A list of recommendations for the AEEPE course were made based upon the open-ended responses to the question, "What aspects of the evaluation process did you feel that you were unprepared for?" as well as the responses provided to other open-ended questions and the comments made in the comment area at the end of the questionnaire. The open-ended responses and comments from the spring 2006 course are listed in Appendix F.   The open-ended responses and comments from

the summer 2006 course are listed in Appendix G. The open-ended responses and comments from the fall 2006 course are listed in Appendix H. The recommendations that were made for the AEEPE course based upon the respondents comments and feedback can be found in the Discussion section of Chapter five.

CHAPTER FIVE
DISCUSSION

I.   **INTERPRETATION OF RESULTS**

The purpose of this study was to determine the extent to which participants in the

online course entitled "Applied Environmental Education Program Evaluation,"

implemented the program evaluation plans they develop during the course and the impact

of the evaluations on their programs. To achieve this goal, eight objectives were

identified for this research. Formative and summative evaluations, including a pre-course

questionnaire, course evaluation, six month post course questionnaire, and one year post

course questionnaire were used to obtain data to determine whether participants in the

AEEPE course implemented the program evaluation plans that they developed in the

course, the extent to which they implemented their plans and impacts of their evaluations

on their programs. This chapter will present interpretation of the results from the

research, recommendations for the changes to the AEEPE course and further research,

and a summary of the outcomes of the study.

A.   Objective One

The purpose of objective one was to determine the percentage of course participants that implemented the program evaluations that they developed during the course.   The hypothesis for this study was that at least 80% of the non-formal environmental educators completing the Applied EE Program Evaluation course would evaluate their environmental education program and identify strategies to improve it.

Although many of the course participants were successful in evaluating their programs, only 60% of the total respondents from the spring, summer and fall 2006 courses indicated that they had started or completed a program evaluation within six months of completing the AEEPE course. While there were many reasons respondents provided for not being able to begin a course evaluation, one reason stood out as a factor completely unrelated to the participants' knowledge, skills, planning, training, or experience in program evaluation. Eight of the respondents that did not begin an evaluation indicated they did not have a program to evaluate within the six months after completing the course. Some of the respondents that did not have a program that they were working with were students, while others were not employed in the EE field during the time of this study. When these eight respondents were removed from the total, the percentage of course participants that evaluated a program within six months of completing the course increased to 68%.

Twenty –four course participants who completed the spring 2006 six month post course questionnaire also completed the spring 2006 one year post course questionnaire. Two of the respondents who initially indicated that they had not started a program evaluation within six months of completing the course indicated that they had started or

completed and evaluation within one year. When these two respondents are added to the total percentage of student responses from the spring, summer and fall 2006 courses the total percentage of respondents that that had a program to evaluate and indicated that they had started the evaluation process within one year of completing the course increases to 71% .

The hypothesis for this study was not met, as only 68% of the total respondents indicated that they had evaluated their program within six months of completing the AEEPE course and only 71% indicated that they had evaluated a program within one year of completing the course. While these frequencies represent a notable majority of the respondents, they still do not reach the desired frequency of 80% that was hypothesized for this research. This lower than anticipated frequency of implementation may be partially attributable to the post delayed length of time selected for this study.   Sixty-two percent of the respondents that did not begin the evaluation process indicated that time was the limiting factor which prevented them from beginning the process. Some of the respondents, who provided explanations for their responses, indicated that although they had not yet begun the process, they intended to begin the process within the following year. Because only 24 of the 65 students that completed a six month post course questionnaire also completed a one year post course questionnaire, the actual frequency of respondents that evaluated a program within one year of completing the AEEPE course may be greater. Additionally, 98% of the total respondents indicated that they intended to evaluate a program in the future.

B.   Objective Two

The purpose of objective two was to determine the extent to which the course participants implemented their evaluation plans within six months of completing the AEEPE course. The hypothesis for this study was that at least 80% of the non-formal environmental educators completing the Applied EE Program Evaluation course would evaluate their environmental education program and identify strategies to improve it. Sixty percent (39) of the total respondents from the spring, summer, and fall 2006 courses indicated that they had started or completed a program evaluation within six months of completing the course. Of these respondents, 21% (8) indicated that they had started the process, but had only reached the initial phase of tool development and/or revision within the first six months after they completed the course. Twenty-three percent (9) of the respondents indicated that they had progressed as far as the next phase of the evaluation process and had collected data with their evaluation tools; ten percent (4) of the respondents progressed to third and fourth phases of the evaluation process and had analyzed their data and identified outcomes from their programs and strategies for improving their programs; and forty-six percent (18) of the respondents were able to progress to the final phase of the evaluation process and use the results from their evaluations to make changes to their programs.

The hypothesis for this study was not met, as only 34% of the total respondents indicated that they had evaluated their program and identified strategies for improving it. This number equates to 56% of the respondents who indicated that they started the evaluation process.

The limited number of respondents that were able to progress to the final phases of the evaluation process can be partially attributed to the same variable of time that prevented some of the respondents from beginning the program evaluation process within six months of completing the course.   Forty-nine percent of the respondents that began the evaluation process indicated that time was a barrier to completing the evaluation process.

When examining the extent to which the course participants implemented their program evaluation plan, consideration of the aspects of their programs that they chose to evaluate provided additional insight into the extent of their evaluations. Of the 39 respondents that indicated that they had begun the evaluation process, 72% (28) indicated that their evaluation focused on program content; 51% (20) indicated that their evaluation focused on program delivery; 51% (20) indicated that their evaluation focused on participant satisfaction, 49% (19) indicated that their evaluation focused on short term outcomes; 41% (16) indicated that their evaluation focused on the achievement of program objectives; 31% (12) indicated that their evaluation focused on participant behavioral changes; 28% (11) indicated that their evaluation focused on participant knowledge and/or attitude changes; 21% (8) indicated that their evaluation focused on staff knowledge and/or skills; 18% (7) indicated that their evaluation focused on program attendance; 13% (5) indicated that their evaluation focused on the program's ability to meet the EE guidelines for excellence; 13% (5) indicated that their evaluation focused on medium term outcomes; and 3% (1) indicated that the evaluation focused on long term outcomes.

Program content, program delivery and participant satisfaction emerged as the focus of the majority of the respondents' evaluations. A notable minority of the respondents chose to evaluate the medium term outcomes of their program or whether their programs meet the EE Guidelines for Excellence and only one respondent chose to evaluate the long term outcomes of her program. These results may indicate that the scope of the respondents' evaluations are limited to an immediate focus. If the field of EE is to make significant improvements in the area of program evaluation, research, and reporting, one area that EE evaluation courses may need to focus on in the future is the justification and techniques for examining longer term outcomes of a program, as well as the value in evaluating a program's ability to meet the EE Guidelines for Excellence.

C.   Objective Three

The purpose of objective three was to determine what outcomes and strategies the course participants identified as a result of their program evaluations. Twenty-two of the total respondents from the spring, summer and fall 2006 courses analyzed the data from their evaluations and identified outcomes resulting from their programs. Their responses fell into 12 categories. The most common outcome that resulted from the respondents evaluations was the identification of the areas where the program needed improvement. By identifying the areas where the programs needed improvement, the respondents' evaluations provided specific feedback that could be immediately used and applied by the program directors or educators.

The second most common outcome that resulted from the respondents' evaluations was that the participants in the respondents' programs had a high level of satisfaction with the programs. This outcome may enable the program evaluator to provide valuable reporting and feedback for the programs funders, stakeholders, and audience. Additionally, it may provide the staff with positive feedback and encouragement for the work that they are doing.

Other outcomes that were identified, included, results that indicated that the program's objectives and/or goals were met; results that identified the strengths of the program; results that showed measurable or observable changes in the participants' knowledge or attitudes; results that showed measurable changes in participant behavior; results that identified where the evaluation tool needs improvement; and results that identifies areas for improved staff or volunteer training. Additionally, the results of the evaluation identified some short and medium term outcomes of the programs.

The program outcomes identified as a result of the program evaluation helped the program evaluators to identify strategies to make improvements to their programming, staff or volunteer training, and evaluation tools. Additionally the record of outcomes identified as a result of the evaluation may help the program evaluator to inform reporting to the programs' audiences, stakeholders, and funders.

Sixteen of the respondents also identified strategies to address the program outcomes that they identified from their evaluations. These strategies fell into 10 categories. The most common strategy that the respondents identified for improving their program was to change the program content to better meet the needs and interests of the audience, organization, or state or EE standards.

Other strategies that were identified included making changes to pre-program classroom activities, planning or communication; training staff or volunteers in needed knowledge or skills; changing or modifying the assessment tool; including more stakeholders in program development; changing the program delivery to better meet the audience's needs, interests, or learning styles; adjusting the cognitive level of the program content, and increasing the use of front-end evaluation when developing future programs.

The strategies identified as a result of the program evaluation may help the program evaluators to make improvements to their programming, staff or volunteer training, evaluation tools, and future program planning and implementation.

D. Objective Four

The purpose of objective four was to identify what changes the course participants make to their programs based on the results of their evaluations. Eighteen of the total respondents from the spring, summer, and fall 2006 courses made changes to their programs based on the results of their evaluations.   These changes fell into five categories.   The most common program change made by the respondents was a change to the program delivery.   Fifty percent of the eighteen respondents indicated that they had changed their program delivery as a result of the outcomes that they identified as a result of their program evaluation. Additionally, thirty-nine of the respondents made changes to their program content; 33% redefined their goals or objective; 28% made changes to their volunteer or staff training; and 17% made changes to their program to better meet the EE guidelines for excellence.

As a result of the changes that the respondents made to their programs, the respondent reported increased staff/volunteer confidence, satisfaction, and involvement, increased program alignment to organizational goals, increased diversity of programs options, better defined program goals, stronger program content, more effective program delivery and participant involvement and satisfaction, and improved participant reviews/ratings of the program.

E.   Objective Five

The purpose of objective five was to determine why some participants do not conduct an evaluation of their program after finishing the online course. Twenty-six of the total respondents from the spring, summer, and fall 2006 courses did not start an evaluation of an EE program within six months of completing the AEEPE course. The reasons that they provided for why they did not begin an evaluation fell into seven categories.

The first variable that was considered when examining these results was that eight of the respondents were not currently employed within the EE field and did not have a program to evaluate at the time of the study. These respondents accounted for 31% of the respondents that indicated that they did not begin the evaluation process.

The variable that was most frequently identified by the respondents as the reason that they did not implement their evaluation plan within six months of completing the AEEPE course was the variable of time. As a result, it was determined that a second questionnaire should be administered to the spring 2006 respondents after a period of one year to determine if participants who did not evaluate their programs within six months of

completing the course would begin or complete an evaluation of their program within the extended time period of one year.

Twenty –four course participants that completed the spring 2006 six month post course questionnaire also completed the spring 2006 one year post course questionnaire. Two of the respondents who initially indicated that they had not started a program evaluation within six months of completing the course indicated that they had started or completed an evaluation within one year. When these two respondents are added to the total percentage of student responses from the spring, summer and fall 2006 courses the total percentage of respondents that had a program to evaluate and indicated that they had started the evaluation process within one year of completing the course increases to 71% . Because only 24 of the 65 students that completed a six month post course questionnaire also completed a one year post course questionnaire, the actual frequency of respondents that evaluated a program within one year of completing the AEEPE course may be greater.

There were four other reasons provided for why the respondents did not evaluate their programs. These reasons included money constraints (8%), insufficient qualified staff (12%), lack of confidence (4%), and lack of support from the agency or organizations (4%). These four reasons represented a notable minority of the total reasons provided by the respondents.

These results suggest that a significant majority of the variables that prevented the respondents from beginning an evaluation of their program were not related to a lack of skills, knowledge, training or experience in program evaluation. Only one participant indicated that a lack of confidence prevented them from conducting a program evaluation.

This may imply that the AEEPE course was able to successfully train and prepare the course participants to conduct program evaluations, but variables other than training and preparation prevented the course participants from using the skills and knowledge gained from the course to evaluate EE programs.

F. Objective Six

The purpose of objective six was to identify what factors external to the AEEPE course may influence participants' ability to implement their program evaluation plans and make changes to their programs after completing the course. To identify what factors external to the AEEPE course may influence the participants' ability to implement their program evaluation plans and make changes to their programs after completing the course, eight external variables were examined and compared to the frequency of students that started and did not start a program evaluation.

The first set of variables that were examined to determine if they had any relationship to the respondents successful application of the evaluation process to their programs were demographic variables. The results suggest that the participants' occupations have a minor relationship to whether or not they evaluate their programs after completing the AEEPE course. Directors of EE organizations, programs, or sites and respondents that classified themselves as environmental or outdoor educators had a slightly higher probability of evaluating a program after completing the course. Additionally, the amount of time that the respondents were in their positions did not appear to relate to whether or not they would evaluate their programs after completing the AEEPE course.

The years of experience that the participants had in evaluation prior to beginning the course did appear to have some connection to whether or not the respondents evaluated their programs after completing the AEEPE course. Those respondents that had over five years of experience in program evaluation prior to beginning the AEEPE course appeared to have a higher probability of beginning or completing a program evaluation after completing the course.

Respondents that were involved in program evaluation prior to beginning the course appeared to have a higher probability of conducting an evaluation as compared to those respondents that were not involved in program evaluation at the time they began the AEEPE course. However, only 62% of the respondents that reported that they were involved in program evaluation at the time that they began the AEEPE course indicated that they had begun a program evaluation within six months of completing the AEEPE course.

Whether or not the participants were required to evaluate a program as a responsibility of their position prior to beginning the AEEPE course also did not appear to relate to whether or not they would evaluate their programs after completing the AEEPE course.

The second set of variables that were examined to determine if they had any relationship to the respondents' successful application of the evaluation process to their programs were variables related to the participants' motivations. The motivations that were identified by the respondents fell into six categories: improve program content; secure funding; required reporting; improve staff development; improve resource management; and other.

The motivations that seemed to have the strongest relationship to implementing an evaluation were to secure funding, improve staff development, and required reporting. The other motivations had less relationship to whether the respondents would evaluate their programs after completing the AEEPE course.

The third set of variables that were examined to determine if they had any relationship to the respondents' successful application of the evaluation process to their programs were variables related to the barriers that the participants encountered that impeded them in conducting a program evaluation.

The limiting factor that precipitated the respondents' participation in the AEEPE course which appeared to have the greatest relationship to whether the respondent would evaluate their programs after completing the AEEPE course was a lack of funds. The barriers that the respondents encountered after completing the AEEPE course that appear to have the greatest relationship to whether the respondents would evaluate their programs after completing the AEEPE course were the barriers of no program and no support. All of the respondents that reported that they had either no program or no support also reported that they had not started a program evaluation within six months of completing the AEEPE course. The most common barrier encountered, which impeded both those participants that indicated that they did not begin an evaluation and those participants that began the evaluation process was the barrier of time. The second most common barrier encountered was the barrier of money.

G.   Objective Seven

The purpose of objective seven was to evaluate the extent to which the AEEPE course provided the participants with the knowledge and skills needed to conduct the program evaluations.

At the end of the AEEPE course and at six months after finishing the course, the course participants were asked to indicate the extent to which they felt that they had increased their knowledge and skills in program evaluation as a result of taking the course. At both the end of the course and six months after the end of the course, over 95% of the respondents either agreed or strongly agreed they had increased their knowledge of program evaluation as a result of taking the AEEPE course. At both the end of the course and six months after the end of the course, over 85% of the respondents either agreed or strongly agreed they had increased their skills in program evaluation as a result of taking the AEEPE course.   Additionally, 98% of the respondents indicated that they intended to evaluate a program in the future.

These results suggest that the AEEPE course successfully provided the course participants with the knowledge and skills necessary to conduct program evaluation. The results also provide evidence that positive outcomes can be achieved by a program evaluation professional development opportunity provided to EE professionals through an online format.

II.   THREATS TO RELIABILITY AND VALIDITY

This research examined the short and medium term outcomes resulting from participation in the AEEPE course. Short and medium term outcomes were determined

based on the course participants' responses in a six month and/or one year post course questionnaire that consisted of questions that measured the respondents perceived or actual changes in behavior, cognitive levels, attitude, and experiences related to program evaluation.   When examining the relationship between the AEEPE course and the cognitive, behavioral, attitudinal, and experiential changes related to environmental education program evaluation that occurred among the course participants within the six month to one year time period after the end of each course, there are some threats to reliability and validity of the measurements, results and conclusions that must be considered.

The first threat to examine is non-response bias. While the overall response rate of 83% as well as the individual response rates for each semester surveyed (spring 2006 = 85%, summer 2006 = 80%, fall 2006 = 85%) were high enough to suggest that a good participant population was surveyed, the remaining course participants that did not complete a questionnaire could have contributed to non-response bias. Course participants that did not complete the post course questionnaires may have refrained from doing so because they had experiences or outcomes that would have reflected negatively on the overall results. As a result, the exclusion of information from those respondents that did not respond may have resulted in research results that showed increased positive outcomes and satisfaction levels. To avoid this bias, the researcher attempted to contact each course participant that was asked to complete a questionnaire at least three times. Despite these efforts, eleven (17%) of the people surveyed could not be considered in the results because they did not complete a questionnaire.

The second threat to the reliability and validity of this research is the possible presence of confounding language within the evaluation tool. A combination of comments provided by respondents on the questionnaire and personal communication with respondents after the research was complete, suggests that in a few cases language used in the questionnaire was misinterpreted by the respondents. Five questions seemed to be the most susceptible to misinterpretation. The first question that may have resulted in bias asked whether the respondents had implemented any part of the evaluation plan that they developed during the AEEPE course. In at least one case, a respondent indicated that they had not implemented an evaluation plan because the plan that they implemented was developed after they completed the AEEPE course. If other respondents interpreted this question to only include the plans specifically developed in the AEEPE course, their responses may have caused the results to show decreased positive outcomes. The researcher attempted to avoid this threat by having the questionnaire reviewed by a validity panel and 25 participants from the spring 2006 AEEPE course.

The second issue of language that could have biased the research results was the use of the word 'program.' Many of the items in the questionnaire referred to a 'program' evaluation and 'program' changes. A few comments made on questionnaires revealed that some of the respondents had created evaluation plans to evaluate an educational tool, such as a lending trunk, instead of an instructor led program. While the term 'program' was meant to include non-instructor led programs, such as a lending trunk program, some respondents may have interpreted the questions that included the term 'program' to not include the educational tools that they evaluated. If the respondents

176

interpreted questions with the term 'program' to only include instructor led program, their responses may have caused the results to show decreased positive outcomes.

The final three instances of confounding language occurred in three questions that were asked of the respondents that indicated that they had implemented their evaluation plans. The first question asked the respondents to identify what conclusions they drew about their program as a result of analyzing data gathered in their evaluations. In some cases respondents indicated that they did not understand the question and in other cases this item was left blank. Both cases may have resulted in skewed results from the research. A similar situation occurred with the two other questions. One question asked the participants to identify what strategies they identified to improve their program as a result of the evaluation and the other question asked them to identify what new outcomes were achieved as a result of the changes they made to their programs. The term "strategies" in the first item and the term "outcomes" in the second item may have resulted in reduced response rates to each of these items because the respondents did not understand the terms and, as a result, the question.

One final threat to the reliability and validity of this research must be examined. This research aimed to determine the medium term outcomes that resulted from participation in the AEEPE course. Upon completion of the research, the researcher found that the time period chosen for the evaluation was not sufficient to determine the full extent of medium term outcomes resulting from the AEEPE course. While the results did provide enough data to support conclusions about the outcomes of the AEEPE course, the results may have had greater validity if all of the surveys of the course

participants had taken place one to two years after they completed the course, instead of within the six month time period that was chosen for this study.

III.   RECOMMENDATIONS

These recommendations address objective eight of the research, which is to provide recommendations for how the AEEPE course could be improved; they also provide recommendations for further research. There were three key areas of improvement or enhancement for the course which were identified as a result of the course evaluations and participants' comments.

Course participants indicated that they refer to the course material that they printed often. Those that did not print the course content, sometimes in the interest of saving paper, were disappointed that they did not have access to the material after completing the course. To address this issue, UW Stevens Point could make a CD of the course content available to the course participants as well as provide and promote other sources that the students can access to support them in their evaluation process after completing the AEEPE course.   An example of an outside source is the *My Environmental Education Evaluation Resource Assistant* (MEEERA) website, which provides guidelines, sample evaluation plans and tools, tips, and links to additional online resources for program evaluation.

Some course participants reported that reviewing the tools that other course participants and professionals in the field had created was one of the most helpful components of the course because it made the tool development process less intimidating. Others indicated that they would have liked to have had more examples good evaluation

tools. To address this issue, a gallery of good examples of evaluation tools could be added to the course.

One of the most common and consistent criticisms of the course was that the course attempted to cover too much content within too short a period of time. Many participants indicated that they felt that there wasn't enough time to cover some sections of the course effectively, especially Unit 7, which addressed data analysis and reporting. Additionally, many respondents indicated that they struggled when it came to actually implementing the tools that they developed and managing the data they collected. To address this issue, some of the content could be removed from the current course and a follow-up course could be developed to focus on the implementation of the evaluation and data management.

In addition to these recommendations for the course, there are two recommendations for further research.   The variable of time was most common reason that the respondents indicated they were unable to either start or complete the evaluation process. Some respondents provided follow-up comments as to why they were not able to either start or complete an evaluation in the six month or one year time period following the end of the AEEPE course. These respondents indicated that a time period of approximately two years was needed to complete the evaluation process, make changes to their programs and evaluate the outcomes resulting from the changes. Because only 46% of the respondents that began the evaluation process were able to complete the process and make changes to their program and only 28% of the total respondents made it to the step of changing their program, the extent of the medium term outcomes resulting from the AEEPE course was not fully determined.   As a result, a two

year and/or five year post course study is recommended to better determine the medium and long term outcomes from the course.

Additionally, the current study did not examine issues of accuracy and efficacy in the evaluation process. Because many of the criticism of program evaluation address the issues of accuracy and efficacy in evaluation design and execution, a study that examines the accuracy and efficacy of the evaluation plans and tools is recommended to better determine how effectively and reliably the evaluation plans and tools developed in the AEEPE course are being carried out in the environmental education field. To examine the efficacy and accuracy of the evaluations being used in EE programs, a committee of experts in EE program evaluation could be employed to review case studies of EE programs that are evaluated using the evaluation plans and skills developed in the AEEPE course.

To address the need for a two year and/or five year follow-up, a streamlined questionnaire based on the initial six month questionnaire (Appendix J) has been designed to collect data on the medium and long term outcomes resulting from the AEEPE course.   The questionnaire would be administered to course participants to determine the overall outcomes resulting from the AEEPE course. In addition to the questionnaire, further research could use online focus groups or case studies to provide a more extensive analysis of the possible outcomes that can result from the incorporation of evaluation in EE programs.

IV. SUMMARY

While the results of this research were not able to show the full extent of the medium term outcomes that resulted from participation in the online *Applied Environmental Education Program Evaluation* course, the results did provide evidence of many positive outcomes that resulted from the course.

Based upon the respondents' reported levels of perceived knowledge and skill levels at the end of the course and six months after the end of the course, as well as the result that 98% indicated that they plan to evaluate a program in the futures, and given that the respondents indicated that there were very few aspects of the evaluation that they were unprepared for after completing AEEPE course, it can be concluded that the AEEPE course successfully provides course participants with the knowledge, skills and tools to conduct program evaluations after completing the course.

While not all of the respondents were able to complete the evaluation process within the six month or one year time period, enough were able to complete the process to be able to conclude that the evaluations that the course participants conducted after completing the AEEPE course, resulted in improvements to their program content, program delivery, program goals, and staff training and the changes made to the participants programs as a result of their evaluations, resulted in increased audience satisfaction, improved attainment of program goals, and greater stakeholder involvement.

Additionally, the results show that six months after completing the AEEPE course, participant satisfaction with the course was still high and the participants expressed an increased awareness of the benefits of including evaluation as a part of their programs. The participants are not only using the knowledge, skills and tools that they obtain from

the course, they are also sharing what they learned with colleagues and are promoting

evaluation at their agencies and organizations.

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APPENDIX A

Pre-Course Questionnaire

Sample Message Posted in Desire2Learn

Hello everyone!

This week you will need to accomplish three things:

1. Complete the Pre-course questionnaire by **June 16**. To access this assignment, click on the "Content" link on the top navigation bar in D2L. Then click on the "Pre-course questionnaire" link.

2. Complete the scavenger hunt activity and submit your answers via email to Rainey Kreis (rkreis@uwsp.edu), the course manager, by **June 16**. To get started now, click on "Scavenger Hunt" in the box on the left side of your screen.

3. Post a short biography about yourself on the Discussion Board under "Biography" Please have this posted by **June 18**.

Your biography should include:

        a. Where you are from.
        b. Where you currently live.
        c. What you do or have done for a living.
        d. Any hobbies or things that you like to do for fun.
        e. Your expectations for this course.

Feel free to reply to others and get to know one another.

Applied EE Program Evaluation

Pre-course Questionnaire

When you are finished completing the questionnaire, click the "Submit" button.

Name: [   ]

Email address: [   ]

Agency or organization: [   ]

Position: [   ]

How long have you been in your current position? [   ]

1. What is your primary reason for taking this course?

[text box]

2. What motivation(s) do you have for developing skills in program evaluation? (You may select more then one option)

☐ Improve program content   ☐ Secure Funding

☐ Required reporting   ☐ Improve resource management

☐ Improve staff development   ☐ Other

If other, please explain:

[text box]

3. Do you <u>currently</u> evaluate educational programs at your agency or organization

☐ Yes   ☐ No

If yes, list the program or programs you evaluate?

```
[                                    ]
```

List the evaluation tools or methods you use:

```
[                                    ]
```

Who is actively involved in the program evaluation? (You may select more then one option)

☐ Outside Experts   ☐ Funders
☐ Directors   ☐ Supervisors
☐ Education Staff   ☐ Volunteers
☐ Participants   ☐ Other

If other, please explain:

```
[                                    ]
```

4. Are you required to evaluate your educational program(s)?

☐ Yes   ☐ No

If yes, by whom?

```
[                                    ]
```

What information do they want to know?

```
[                                    ]
```

5. Describe your past evaluation experiences.

```
[                                    ]
```

6. What factors have limited you in evaluating your program in the past? (You may select more then one option)

☐ Lack of skills   ☐ Lack of knowledge

☐ Lack of funds   ☐ Lack of experience or training

☐ Lack of time   ☐ Other

If other, please explain:

Rate your level of confidence with the following aspects of evaluation.

How confident are you...

7. With your knowledge of program evaluation?...............................

8. In your ability to develop an evaluation plan for evaluating a specific educational program?...

9. In your ability to differentiate among front-end (needs assessment), formative, and summative evaluation phases?..........

10. In your ability to write specific, measurable objectives to guide program evaluation?..

11. In your ability to select appropriate evaluation tools (questionnaires, observations, concept mapping) for specific evaluation goals?......

12. In your ability to design a questionnaire?....................................

13. In your ability to develop an interview guide?..............................

14. In your ability to develop alternative assessment tools?.............

15. In your ability to analyze evaluation data?...................................

Thank you!

Submit

APPENDIX B

Course Evaluation

Sample Message Posted in Desire2Learn News Section

Hello Everyone,

Just a quick reminder....Friday is the deadline for you to complete the 3 final assignments:

1. Final Course Evaluation

2. Goods and Services Form

3. Culminating Assignment

Please make sure you submit these ASAP. Also please be sure that you download or copy anything you want from the course materials content pages by September 8th. You will continue to have access to your grades, discussion boards, and dropbox for feedback until September 8th.

Thanks and Congratulations!!
Rainey

Course Evaluation

The Environmental Education and Training Partnership (EETAP) is interested in whether or not you feel this course influenced your knowledge and skills in evaluating your education programs. Whether you are currently evaluating your environmental education program or not, we would appreciate it if you would fill out the questionnaire below.

The information that you provide on the questionnaire will be recorded in a confidential web form. We do ask that you provide your name, but assure you that this information will only be used to keep track of which participants submitted a questionnaire (e.g., if the "Submit" button accidentally gets clicked twice, we know to only add that person's feedback once). No information will be released to the course instructor identifying you with your completed questionnaire. Submitted questionnaires will not be available to anyone other than the course manager, Rainey Kreis, until one month after the course has ended. Please e-mail Rainey (rkreis@uwsp.edu) with any questions.

If you want to withdraw your participation in the evaluation of this course, you may do so without penalty.

Thank you for your involvement in the course and for your completion of this questionnaire. Your feedback is important to us!

When you are finished completing the questionnaire, please click the "Submit" button.

Overall Course Outcomes

To what extent do you agree or disagree with the following statements...

1. I have increased my knowledge of environmental education program evaluation as a result of taking this course.

2. I have increased my skills in conducting an evaluation of an environmental education program as a result of taking this course.

3. If you responded "Disagree" to any of the above questions please note the question(s) and explain why. You may also use this space to make additional comments or suggestions about the overall course outcomes:

[text box]

4. What did you like most about the course?

[text box]

5. What components of the course will be most helpful for evaluating your EE program?

[text box]

6. What aspects of the course could be improved?

[text box]

Instructor Evaluation

If you would like to evaluate your instructor's facilitation of the online course, please complete the section below. The comments you provide are confidential. Your instructor will not receive these comments until one month after the course has ended.

Please indicate to what extent you agree or disagree with the following statements.

The course instructor......

7. Provided responses to my questions in a timely manner.   [dropdown]

8. Seemed interested in/concerned with my learning and performance.   [dropdown]

9. Respected students' opinions.   [dropdown]

10. Provided comments on my work that were clear and useful. [dropdown]

11. Demonstrated knowledge of the course material.   [dropdown]

12. Graded assignments fairly.   [dropdown]

13. Encouraged student participation.   [▼]

14. Fostered a learning environment in which students felt comfortable asking questions and expressing ideas.   [▼]

15. Additional comments about the instructor:

[▲]
[▼]
[◄   ►]

Background Information

First Name: [   ]

Last Name: [   ]

Instructor Name: [▼]

Note: This information will only be used to determine what course participants have or have not completed an evaluation.

May EETAP/UWSP/FWS use your comments for use in course promotion? [▼]

16. What is your current or most recent occupation? *(You may choose more than one option below)*

- ☐ Environmental Educator/outdoor educator
- ☐ Museum/zoo educator
- ☐ WILD/WET/PLT state coordinator
- ☐ U.S. Fish and Wildlife Service educator
- ☐ Director of an environmental education organization, program, or center
- ☐ Other

If other, please describe:

[▲]
[▼]
[◄   ►]

17. Prior to taking this course, how long had you been evaluating environmental education programs? [_____ ▼]

18. Would you recommend this course to a colleague or friend?

⊙ Yes ☐ No

If you answered no, please explain why:

[   ]

19. Where did you hear about this course?

[   ]

20. How can we make more people aware of the opportunity to take this course?

[   ]

Thank you!

[Submit]

APPENDIX C

Six Month Post Course Questionnaire

Six Month Post Course Questionnaire Cover Letter

Dear XY,

This last fall/spring/summer you had the opportunity to participate in the online environmental education (EE) course, *Applied Environmental Education Program Evaluation* (AEEPE)*.* As a professional in the field with an understanding and appreciation of the value of evaluation as tool for program improvement and accountability, I hope that you will help us by participating in an evaluation for the AEEPE course.

I am conducting a study to determine the extent to which participants in the AEEPE course are implementing the program evaluation plans they develop during the course and the impact of the evaluation on their programs. By clicking on the link below you can be an important part of this study. Whether or not you have had an opportunity to develop an evaluation plan, evaluation tool, or evaluate a program, your input will be of great value. We want to know what happens after course participants are finished with the course and only you can tell us this.

The questionnaire should only take 30 minutes to complete. Thank you for your participation.

Sincerely,
Rainey Kreis

Informed Consent to Participate in Human Subject Research

Please read the information below before following the link at the bottom of the page that will take you to the questionnaire.

Dr. Richard Wilke, Distinguished Professor at the University of Wisconsin-Stevens Point, and graduate student Rainey Kreis are conducting a study to evaluate the extent to which the Applied Environmental Education Program Evaluation course contributes to the ability of AEEPE course participants to evaluate their environmental education programs. You are being asked to participate in this study by completing the AEEPE post course questionnaire.

This questionnaire is intended to evaluate the use of program evaluation, evaluation plans, and evaluation tools by AEEPE course participants. The questionnaire is an online form that can be completed and submitted online. The form should take approximately 30 minutes to complete. The questionnaire will ask you about your experience with program evaluation after completing the AEEPE course, the barriers that you have encountered, and your interaction with others related to program evaluation. The questionnaire contains questions that can be answered by participants who have little or no experience with program evaluation after completing the AEEPE course.

By participating in this study you will contribute valuable information to the field of environmental education and assist us in identifying if the AEEPE course is actually contributing to increased program evaluation in the EE field, as well as improvements in EE programming as a result of the use of evaluation.

The answers that you provide will be recorded in a confidential form. You will be asked to report your name on the questionnaire form. This information will only be used to track who has submitted a response to the questionnaire so that we do not solicit a second response from you

and so that we can track any inadvertent multiple submissions from the same participant. Upon receipt of you responses, your name will be removed from the data set. The responses that you submit will not be available to be viewed by anyone other than Rainey Kreis. None of the data that is published or viewed by anyone other that Rainey Kreis, will be linked to you or include your name.

If you want to withdraw from the study, you may do so without penalty, but we greatly value your input and hope that you will choose to participate.

If you have any complaints about your treatment as a participant in this study, please contact:

Dr. Karlene Ferrante
Institutional Review Board for the Protection of Human Subjects
Communications Department
University of Wisconsin – Stevens Point
Stevens Point, WI 54481
(715) 346-3712

Although Dr. Ferrante will ask your name, all complaints are kept in confidence.

Your completion and submission of the AEEPE questionnaire to the researchers represents your consent to serve as a subject in this research.

To access the questionnaire, click here!

If you are not able to link directly to the questionnaire from this email, please cut and paste this address into your web browser:
https://www.uwsp.edu/natres/nres410/aeepe/post_course_questionnaire.htm

Rainey Kreis
Online EE Course Graduate Assistant
Environmental Education & Training Partnership
University of Wisconsin-Stevens Point
College of Natural Resources
Stevens Point, WI 54481
Phone: (715) 346-4748
Email: rkreis@uwsp.edu
www.eetap.org

Sample Follow-up Letter Sent to Non-Responders
(Second Email)

Dear XX,

Two week ago I contacted you to request your participation in an evaluation that I am conducting to determine the extent to which participants in the AEEPE course are implementing the program evaluation plans they develop during the course and the impact of the evaluation(s) on their programs. As a professional in the field with an understanding and appreciation of the value of evaluation as tool for program improvement and accountability, I hope that you will help by participating in this evaluation of the AEEPE course.<?xml:namespace prefix = o ns = "urn:schemas-microsoft-com:office:office" />

By clicking on the link below you can be an important part of this study. ***Whether or not you have had an opportunity to implement your evaluation plan***, your input will be of great value. We want to know what happens after course participants are finished with the course and ***only you can tell us this.***

The questionnaire should only take 30 minutes to complete. I appreciate you taking the time out of your busy day to complete the questionnaire. Thank you for your participation.

Sincerely,
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 By participating in this study you will contribute valuable information to the field of environmental education and assist us in identifying if the AEEPE course is actually contributing to increased program evaluation in the EE field, as well as improvements in EE programming as a result of the use of evaluation.

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submit will not be available to be viewed by anyone other than Rainey Kreis. None of the data that is published or viewed by anyone other that Rainey Kreis, will be linked to you or include your name.

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Dear X,

A few weeks ago Rainey Kreis contacted you to request your participation in an evaluation that she is conducting to determine the extent to which participants in the AEEPE course are implementing the program evaluation plans they develop during the course and the impact of the evaluation(s) on their programs. As a professional in the field with an understanding and appreciation of the value of evaluation as tool for program improvement and accountability, I hope that you will help by participating in this evaluation of the AEEPE course.

By clicking on the link below you can be an important part of this study. ***Whether or not you have had an opportunity to implement your evaluation plan***, your input will be of great value. We want to know what happens after course participants are finished with the course and ***only you can tell us this.***

The questionnaire should only take 30 minutes to complete. I appreciate you taking the time out of your busy day to complete the questionnaire. Thank you for your participation.

Sincerely,

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Applied EE Program Evaluation

Post Course Questionnaire

Thank you for taking the time to complete this questionnaire.

Many of the questions provide options from which you can select an answer. You may select your preferences by clicking on the dot or bullet that precedes each option. If your answer is not provided, please select 'other' and explain in the space provided. A few questions provide a space for you to type your answer. Please try to answer the questions as completely as possible.

The questionnaire should only take 30 minutes to complete. When you are finished, do not forget to click the "Submit" button.

Please contact Rainey Kreis (rkreis@uwsp.edu or 715-346-4748) if you have any questions.

Name:

Email address:

Agency or organization:

Position:

Number of people served each year by programs offered through your agency or organization:

Directions: Please "click" on the dot or square next to the answer of your choice. For some answers you may select more than one response.   When a question asks for an explanation, you can type your response directly into the box below the question.

1. Have you implemented any part of the program evaluation plan that you developed during the AEEPE course?

    ☐ Yes   ☐ No

2. If you answered "No" to item #1, what was the reason that you did not implement the

evaluation plan?   (check all that apply)

- [ ] No program to evaluate
- [ ] Time constraints (I intend to evaluate my program, but the timeframe has not yet been appropriate)
- [ ] Money constraints
- [ ] Insufficient qualified staff to do evaluation
- [ ] Lack of confidence in ability to carry out the evaluation plan
- [ ] Not supported by agency/organization
- [ ] Lack of cooperation within agency/organization
- [ ] Lack of cooperation by participants
- [ ] Other (Please explain)

If you answered "No" to item #1, please skip to item #30. To skip ahead please CLICK HERE.

Program Evaluation Plan Implementation

3. If you answered "yes" to item #1, how have you implemented your program evaluation plan? (check all that apply)

- [ ] I revised the tool(s) that I developed in the AEEPE course to better fit my program.
- [ ] I evaluated program inputs (investments)
- [ ] I evaluated program outputs (activities and/or participation)
- [ ] I evaluated short term outcomes (learning - knowledge, attitudes)

☐ I evaluated medium term outcomes (actions - behaviors, decisions)

☐ I evaluated long term outcomes (conditions - changes to the environment)

☐ I developed a format or data entry system for compiling the data gathered from the evaluation(s)

☐ I analyzed the data collected from the evaluation(s)

☐ I reported the results of the data analysis

☐ Other (Please explain)

```
[                                        ] ▲
[                                        ] ▼
◄ [  ]                              ►
```

4 . What evaluation tool(s) did you use to conduct your evaluation? (Check all that apply)

☐ Structured Observation   ☐ Open-ended Observation

☐ One-on-one Interview   ☐ Focus Group Interview

☐ Pre/Post testing   ☐ Questionnaire

☐ Portfolios   ☐ Concept Map

☐ KWL Chart   ☐ Journals

☐ Other (Please Explain)   ☐ Not Applicable

```
[                                        ] ▲
[                                        ] ▼
◄ [  ]                              ►
```

5. How many of the evaluation tools above did you develop during the AEEPE course?

⊙ All   [   ] (Enter a Number)   ⊙ None

6. How many of the evaluation tools did you develop after completing the AEEPE course?

⊙ All   [   ] (Enter a Number)   ⊙ None

7. Who was involved in the development of the evaluation tool(s)?

☐ Myself only

☐ Myself and other staff

☐ Staff other than myself

☐ Other (Please Explain)

☐ Not Applicable

8. What members of your organization have administered an evaluation using an evaluation tool that you developed? (check all that apply)

☐ Myself   ☐ Field Staff

☐ Supervisors   ☐ Volunteers

☐ Other (Please explain)   ☐ None

9. For what phase of your evaluation did you develop your evaluation tool? (Check all that apply)

☐ Front-End/Needs Assessment

☐ Formative

☐ Summative

☐ Not sure

☐ Other (Please explain)

☐ Not Applicable

10. For what reason did you evaluate your program(s)? (Check all that apply)

- ☐ Program development
- ☐ Program improvement
- ☐ Accountability
- ☐ Impact
- ☐ Not sure
- ☐ Other (Please explain)

```
[text box]
```

○ Not Applicable

11. What aspect(s) of the program(s) have you evaluated? (Check all that apply)

- ☐ Program content
- ☐ Program delivery
- ☐ Program ability to meet EE guidelines
- ☐ Attendance of program
- ☐ Participant knowledge gain/attitude change
- ☐ Staff knowledge and/or skills
- ☐ Participant satisfaction
- ☐ Participant behavior
- ☐ Achievement of program objectives
- ☐ Learner short term outcomes
- ☐ Learner medium term outcomes
- ☐ Learner long term outcomes
- ☐ Other (Please explain)

☐   Not Applicable

12. What aspect(s) of the program(s) do you intend to evaluate? (Check all that apply)

☐   Program content

☐   Program delivery

☐   Program ability to meet EE guidelines

☐   Attendance of program

☐   Participant knowledge gain/attitude change

☐   Staff knowledge and/or skills

☐   Participant satisfaction

☐   Participant behavior

☐   Achievement of program objectives

☐   Learner short term outcomes

☐   Learner medium term outcomes

☐   Learner long term outcomes

☐   Other (Please explain)

☐   Not Applicable

13. Do you plan to (continue to) evaluate your program(s) in the future?

☐   Yes   ☐   No

Data Analysis and Reporting

14. Have you analyzed the data collected in your evaluation?

☐ Yes   ☐ No   ☐ Not Applicable

15. What results or conclusions about your program did the analysis of the data from the evaluation identify?

[text box]

☐ Not Applicable

16. Have you reported the data gathered from your evaluation?

☐ Yes   ☐ No   ☐ Not Applicable

17. If you responded "Yes" to item #16, to whom have you reported the information or conclusions resulting from your evaluation? (Check all that apply)

☐ Staff
☐ Funders
☐ Administration
☐ Community
☐ Program audience
☐ Other (Please explain)

[text box]

☐ Not Applicable

18. Did the results of your evaluation enable you to identify any strategies for improving your program?

☐ Yes   ☐ No   ☐ Not Applicable

If "yes," please describe at the strategies that you identified for improving your program.

[text box]

Program Improvements

19. Have you made any changes or improvements to your programs as a result of your program evaluation?

☐ Yes   ☐ No

☐ Not Applicable

20. If you answered "No" to item # 19, what has prevented you from implementing changes to your program based on the data collected from your evaluation? (Check all that apply)

☐ Lack of knowledge or skills required to make the needed/identified improvements
☐ Lack of participation/involvement by other staff
☐ Insufficient time to make the changes
☐ Proposed changes were not supported by the audience
☐ Proposed changes were not supported by the staff
☐ Proposed changes were not supported by administration/board
☐ Insufficient resources available to implement changes
☐ Other (Please explain)

[   ] (text area)

21. If you answered yes to item #19, what changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation? (Check all that apply)

- [ ] Redefined goals or objectives (Please explain)
- [ ] Changed program delivery (Please explain)
- [ ] Made changes to program to meet EE guidelines (Please explain)
- [ ] Changed program content (Please explain)
- [ ] Increased or changed staff/volunteer training (Please explain)
- [ ] Other (Please explain)

[   ] (text area)

- ○ Not Applicable

22. How would you rate the changes that have been made to your program(s) as a result of the data gathered in the evaluation(s)?

- ○ No changes
- ○ Minor changes
- ○ Some changes
- ○ Significant changes
- ○ Completely changed or redesigned the program

- ○ Not Applicable

23. What new outcomes have been achieved by your program as a result of the changes that you made to your programs?

[   ] (text area)

☐ Not Applicable

24. Approximately how many program participants per year will benefit from program improvements that have been or will be made as a result of the program evaluation you developed in the Applied EE Program Evaluation course?

[   ] (Enter a number)

Limitations

25. During the evaluation development and implementation process, was there any aspect of the process that you felt you were not adequately prepared for?

☐ Yes   ☐ No   ☐ Not Applicable

If you selected 'Yes,' please explain:

[   ]

26. Have you encountered any barriers to implementing your program evaluation?

☐ Yes   ☐ No

27. If you answered "yes" to item # 26, what barriers did you encounter to implementing your evaluation? (Check all that apply)

☐ Time constraints
☐ Money Constraints
☐ Insufficient qualified staff to do evaluation
☐ Lack of confidence in ability to develop evaluation plan
☐ Lack of cooperation within organization
☐ Lack of cooperation by participants

☐ Other (Please explain)

[text box]

28. Have you been able to overcome the barrier(s)?

☐ Yes   ☐ No

29. If you answered "Yes" to item #28, how did you overcome the barrier(s)?

[text box]

Knowledge and Skills Transfer

30. Have you shared any knowledge or skills gained from the AEEPE course with others?

☐ Yes   ☐ No

31. If you answered "yes" to item #30, with how many other people have you shared knowledge and skills gained from the AEEPE course? (Check all that apply)

[____] (Enter a number)

32. If you answered "yes" to item #30, with whom have you shared knowledge and skills gained from the AEEPE course? (Check all that apply)

☐ Other staff at my organization   ☐ Staff that I supervise at my organization
☐ Supervisors at my organization   ☐ Volunteers at my organization
☐ Colleagues in the EE field not from my organization
☐ Other (Please explain)

[text input box]

33. If you answered "yes" to item #30, how have you shared information and skills gained from the AEEPE course? (Check all that apply)

- ☐ Informal discussion
- ☐ Formal discussion at a meeting or official gathering
- ☐ On-the-job staff training
- ☐ Pre-service staff training
- ☐ Volunteer training
- ☐ Other (Please explain)

[text input box]

Course Outcomes

34. As a result of taking the AEEPE course, to what extent do you agree or disagree with the following statements
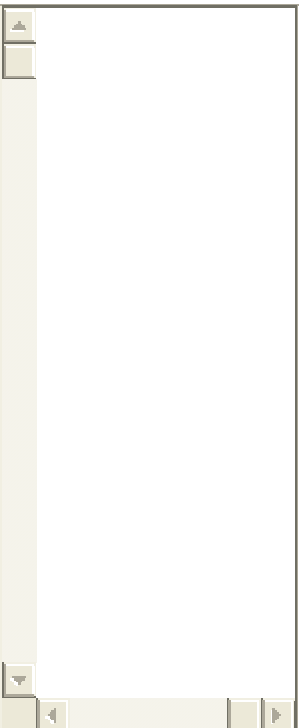
A. I have increased my knowledge of environmental education program evaluation as a result of taking the AEEPE course. [dropdown]

B. I have increased my skills in conducting an evaluation of an environmental education program as a result of taking the AEEPE course. [dropdown]

C. If you responded "Neutral, Disagree, or Strongly Disagree" to item #34A or #34B, please note the item(s) and explain why.

[text input box]

35. Please use the space below to provide any comments that you think could help us

improve the AEEPE course or tell us more about how you have used your knowledge and skills learned in the AEEPE course.

Submit

Thank you for taking the time to complete this survey. Please click on the 'Submit' button to submit your answers.

APPENDIX D

One Year Post Course Questionnaire: Version A

(Sent to Respondents who indicated in the six month post course questionnaire
that they had not begun to implement their program evaluation plan)

One Year Post Course Questionnaire: Version A Cover Letter

Dear XX,

Six months ago I sent you a questionnaire requesting information about how you had used the evaluation skills gained in the AEEPE course. You indicated that you had not yet had a chance to implement the evaluation plan that you developed during the AEEPE course. We would like to know if and/or how you have implemented your evaluation plan, now that over one year has passed since you completed the AEEPE course.

By clicking on the link below you can be an important part of this study. ***Whether or not you have had an opportunity to implement your evaluation plan***, your input will be of great value. We want to know what happens after course participants are finished with the course and ***only you can tell us this.***

The questionnaire should only take 30 minutes to complete. I appreciate you taking the time out of your busy day to complete the questionnaire. Thank you for your participation.

Sincerely,
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(Second Email)

Dear XX,

Six months ago I sent you a questionnaire requesting information about how you had used the evaluation skills gained in the AEEPE course. You indicated that you had not yet had a chance to implement the evaluation plan that you developed during the AEEPE course.

A month ago I sent you a follow-up survey requesting information about how you have continued to use your skills in evaluation during the last year. We would like to know if and/or how you have implemented your evaluation plan, now that over one year has passed since you completed the AEEPE course.

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www.eetap.org

Applied EE Program Evaluation

1-Year Post Course Questionnaire

Thank you for taking the time to complete this questionnaire.

Six months ago I sent you a questionnaire requesting information about how you had used the evaluation skills gained in the AEEPE course. You indicated that you had not yet had a chance to implement the evaluation plan that you developed during the AEEPE course. We would like to know if and/or how you have implemented your evaluation plan, now that over one year has passed since you completed the AEEPE course.

Many of the questions below provide options from which you can select an answer. You may select your preferences by clicking on the dot or bullet that precedes each option. If your answer is not provided, please select 'other' and explain in the space provided. A few questions provide a space for you to type your answer. Please try to answer the questions as completely as possible.

The questionnaire should only take 30 minutes to complete. When you are finished, do not forget to click the "Submit" button.

Please contact Rainey Kreis (rkreis@uwsp.edu or 715-346-4748) if you have any questions.

Name:

Email address:

Agency or organization:

Position:

Number of people served each year by programs offered through your agency or organization:

Directions: Please "click" on the dot or square next to the answer of your choice. For some answers you may select more than one response. When a question asks for an explanation, you can type your response directly into the box below the question.

In the last six months, have you implemented any part of the program evaluation plan that you developed during the AEEPE course?

☐ Yes   ☐ No

2. If you answered "No" to item #1, what was the reason that you did not implement the evaluation plan?   (check all that apply)

☐   No program to evaluate

☐   Time constraints (I intend to evaluate my program, but the timeframe has not yet been appropriate)

☐   Money constraints

☐   Insufficient qualified staff to do evaluation

☐   Lack of confidence in ability to carry out the evaluation plan

☐   Not supported by agency/organization

☐   Lack of cooperation within agency/organization

☐   Lack of cooperation by participants

☐   Other (Please explain)

If you answered "No" to item #1, you do not need to answer any additional questions. To skip ahead to the submit button please CLICK HERE.

Program Evaluation Plan Implementation

3. If you answered "yes" to item #1, how have you implemented your program evaluation pan? (check all that apply)

- ☐ I revised the tool(s) that I developed in the AEEPE course to better fit my program.
- ☐ I evaluated program inputs (investments)
- ☐ I evaluated program outputs (activities and/or participation)
- ☐ I evaluated short term outcomes (learning - knowledge, attitudes)
- ☐ I evaluated medium term outcomes (actions - behaviors, decisions)
- ☐ I evaluated long term outcomes (conditions - changes to the environment)
- ☐ I developed a format or data entry system for compiling the data gathered from the evaluation(s)
- ☐ I analyzed the data collected from the evaluation(s)
- ☐ I reported the results of the data analysis
- ☐ Other (Please explain)

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4 . What evaluation tool(s) did you use to conduct your evaluation? (Check all that apply)

- ☐ Structured Observation
- ☐ One-on-one Interview
- ☐ Pre/Post testing
- ☐ Portfolios
- ☐ KWL Chart
- ☐ Other (Please Explain)
- ☐ Open-ended Observation
- ☐ Focus Group Interview
- ☐ Questionnaire
- ☐ Concept Map
- ☐ Journals
- ☐ Not Applicable

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5. How many of the evaluation tools above did you develop during the AEEPE course?

☐ All   [   ] (Enter a Number)   ☐ None

6. How many of the evaluation tools did you develop <u>after</u> completing the AEEPE course?

☐ All   [   ] (Enter a Number)   ☐ None

7. Who was involved in the development of the evaluation tool(s)?

☐ Myself only
☐ Myself and other staff
☐ Staff other than myself
☐ Other (Please Explain)

[text box]

☐ Not Applicable

8. What members of your organization have administered an evaluation using an evaluation
   tool that you developed? (check all that apply)

☐ Myself   ☐ Field Staff
☐ Supervisors   ☐ Volunteers
☐ Other (Please explain)   ☐ None

[text box]

9. For what phase of your evaluation did you develop your evaluation tool? (Check all that
apply)

- ☐ Front-End/Needs Assessment
- ☐ Formative
- ☐ Summative
- ☐ Not sure
- ☐ Other (Please explain)

[text box]

- ☐ Not Applicable

10. For what reason did you evaluate your program(s)? (Check all that apply)

- ☐ Program development
- ☐ Program improvement
- ☐ Accountability
- ☐ Impact
- ☐ Not sure
- ☐ Other (Please explain)

[text box]

- ☐ Not Applicable

11. What aspect(s) of the program(s) have you evaluated? (Check all that apply)

- ☐ Program content
- ☐ Program delivery
- ☐ Program ability to meet EE guidelines

- ☐ Attendance of program
- ☐ Participant knowledge gain/attitude change
- ☐ Staff knowledge and/or skills
- ☐ Participant satisfaction
- ☐ Participant behavior
- ☐ Achievement of program objectives
- ☐ Learner short term outcomes
- ☐ Learner medium term outcomes
- ☐ Learner long term outcomes
- ☐ Other (Please explain)

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[                                    ▲]
[                                    ▼]
[◄                                  ►]
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- ○ Not Applicable

12. What aspect(s) of the program(s) do you intend to evaluate? (Check all that apply)

- ☐ Program content
- ☐ Program delivery
- ☐ Program ability to meet EE guidelines
- ☐ Attendance of program
- ☐ Participant knowledge gain/attitude change
- ☐ Staff knowledge and/or skills
- ☐ Participant satisfaction
- ☐ Participant behavior
- ☐ Achievement of program objectives
- ☐ Learner short term outcomes
- ☐ Learner medium term outcomes
- ☐ Learner long term outcomes
- ☐ Other (Please explain)

☐ Not Applicable

13. Do you plan to (continue to) evaluate your program(s) in the future?

☐ Yes   ☐ No

Data Analysis and Reporting

14. Have you analyzed the data collected in your evaluation?

☐ Yes   ☐ No   ☐ Not Applicable

15. What results or conclusions about your program did the analysis of the data from the evaluation identify?

☐ Not Applicable

16. Have you reported the data gathered from your evaluation?

☐ Yes   ☐ No   ☐ Not Applicable

17. If you responded "Yes" to item #16, to whom have you reported the information or conclusions resulting from your evaluation? (Check all that apply)

☐ Staff
☐ Funders
☐ Administration

☐ Community

☐ Program audience

☐ Other (Please explain)

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[text box]
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○ Not Applicable

18. Did the results of your evaluation enable you to identify any strategies for improving your program?

○ Yes   ○ No   ○ Not Applicable

If "yes," please describe at the strategies that you identified for improving your program.

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[text box]
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Program Improvements

19. Have you made any changes or improvements to your programs as a result of your program evaluation?

○ Yes   ○ No

○ Not Applicable

20. If you answered "No" to item # 19, what has prevented you from implementing changes to your program based on the data collected from your evaluation? (Check all that apply)

☐ Lack of knowledge or skills required to make the needed/identified improvements

☐ Lack of participation/involvement by other staff

☐ Insufficient time to make the changes

☐ Proposed changes were not supported by the audience

☐ Proposed changes were not supported by the staff

☐ Proposed changes were not supported by administration/board

☐ Insufficient resources available to implement changes

☐ Other (Please explain)

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[text box]
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21. If you answered "Yes" to item #19, what changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation? (Check all that apply)

☐ Redefined goals or objectives (Please explain)

☐ Changed program delivery (Please explain)

☐ Made changes to program to meet EE guidelines (Please explain)

☐ Changed program content (Please explain)

☐ Increased or changed staff/volunteer training (Please explain)

☐ Other (Please explain)

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[text box]
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☐ Not Applicable

22. How would you rate the changes that have been made to your program(s) as a result of the data gathered in the evaluation(s)?

☐ No changes

☐ Minor changes

☐ Some changes

☐ Significant changes

○ Completely changed or redesigned the program

○ Not Applicable

23. What new outcomes have been achieved by your program as a result of the changes that you made to your programs?

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[                                    ▲]
[                                    ▼]
[◄ ▌                              ►   ]
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○ Not Applicable

24. Approximately how many program participants per year will benefit from program improvements that have been or will be made as a result of the program evaluation you developed in the Applied EE Program Evaluation course?

[   ] (Enter a number)

Limitations

25. During the evaluation development and implementation process, was there any aspect of the process that you felt you were not adequately prepared for?

○ Yes   ○ No   ○ Not Applicable

If you selected 'Yes,' please explain:

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[                                    ▲]
[                                    ▼]
[◄ ▌                              ►   ]
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26. Have you encountered any barriers to implementing your program evaluation?

☐ Yes   ☐ No

27. If you answered "yes" to item # 26, what barriers did you encounter to implementing your evaluation? (Check all that apply)

☐ Time constraints
☐ Money Constraints
☐ Insufficient qualified staff to do evaluation
☐ Lack of confidence in ability to develop evaluation plan
☐ Lack of cooperation within organization
☐ Lack of cooperation by participants
☐ Other (Please explain)

28. Have you been able to overcome the barrier(s)?

☐ Yes   ☐ No

29. If you answered "Yes" to item #28, how did you overcome the barrier(s)?

30. Please use the space below to provide any comments that you think could help us improve the AEEPE course or tell us more about how you have used your knowledge and skills learned in the AEEPE course.

Thank you for taking the time to complete this survey. Please click on the 'Submit' button to submit your answers.

Submit

APPENDIX E

One Year Post Course Questionnaire: Version B

(Sent to Respondents who indicated in the six month post course questionnaire
that they had begun to implement their program evaluation plan)

One Year Post Course Questionnaire: Version B Cover Letter

Dear XX,

Six months ago I sent you a questionnaire requesting information about how you had used the evaluation skills gained in the AEEPE course. You indicated that you had implemented some or all of the evaluation plan that you developed during the AEEPE course. We would like to know how you have continued to implement your evaluation plan, now that over one year has passed since you completed the AEEPE course.

By clicking on the link below you can be an important part of this study. ***Whether or not you have had an opportunity to implement your evaluation plan***, your input will be of great value. We want to know what happens after course participants are finished with the course and ***only you can tell us this.***

The questionnaire should only take 30 minutes to complete. I appreciate you taking the time out of your busy day to complete the questionnaire. Thank you for your participation.

Sincerely,
Rainey Kreis

Informed Consent to Participate in Human Subject Research

Please read the information below before following the link at the bottom of the page that will take you to the questionnaire.

Dr. Richard Wilke, Distinguished Professor at the University of Wisconsin-Stevens Point, and graduate student Rainey Kreis are conducting a study to evaluate the extent to which the Applied Environmental Education Program Evaluation course contributes to the ability of AEEPE course participants to evaluate their environmental education programs. You are being asked to participate in this study by completing the AEEPE post course questionnaire.

This questionnaire is intended to evaluate the use of program evaluation, evaluation plans, and evaluation tools by AEEPE course participants. The questionnaire is an online form that can be completed and submitted online. The form should take approximately 30 minutes to complete. The questionnaire will ask you about your experience with program evaluation after completing the AEEPE course, the barriers that you have encountered, and your interaction with others related to program evaluation. The questionnaire contains questions that can be answered by participants who have little or no experience with program evaluation after completing the AEEPE course.

By participating in this study you will contribute valuable information to the field of environmental education and assist us in identifying if the AEEPE course is actually contributing to increased program evaluation in the EE field, as well as improvements in EE programming as a result of the use of evaluation.

The answers that you provide will be recorded in a confidential form. You will be asked to report your name on the questionnaire form. This information will only be used to track who has submitted a response to the questionnaire so that we do not solicit a second response from you and so that we can track any inadvertent multiple submissions from the same participant. Upon receipt of you responses, your name will be removed from the data set. The responses that you

submit will not be available to be viewed by anyone other than Rainey Kreis. None of the data that is published or viewed by anyone other that Rainey Kreis, will be linked to you or include your name.

If you want to withdraw from the study, you may do so without penalty, but we greatly value your input and hope that you will choose to participate.

If you have any questions or concerns, please contact:

Rainey Kreis
Environmental Education Training and Partnership
University of Wisconsin – Stevens Point
College of Natural Resources
Stevens Point, WI 54481
(715) 346-4748
rkreis@uwsp.edu

If you have any complaints about your treatment as a participant in this study, please contact:

Dr. Karlene Ferrante
Institutional Review Board for the Protection of Human Subjects
Communications Department
University of Wisconsin – Stevens Point
Stevens Point, WI 54481
(715) 346-3712

Although Dr. Ferrante will ask your name, all complaints are kept in confidence.

Your completion and submission of the AEEPE questionnaire to the researchers represents your consent to serve as a subject in this research.

To access the questionnaire, click here!

If you are not able to link directly to the questionnaire from this email, please cut and paste this address into your web browser:
https://forms.uwsp.edu/cnr/eetap/1year_post_course_questionnaire-evaluated.htm

Dear XX,

Six months ago I sent you a questionnaire requesting information about how you had used the evaluation skills gained in the AEEPE course. You indicated that you had implemented some or all of the evaluation plan that you developed during the AEEPE course.

A month ago I sent you a follow-up survey requesting information about how you have continued to use your skills in evaluation during the last year. We would like to know how you have continued to implement your evaluation plan, now that over one year has passed since you completed the AEEPE course.

By clicking on the link below you can be an important part of this study. ***Whether or not you have had an opportunity to implement your evaluation plan***, your input will be of great value. We want to know what happens after course participants are finished with the course and ***only you can tell us this.***

The questionnaire should only take 30 minutes to complete. I appreciate you taking the time out of your busy day to complete the questionnaire. Thank you for your participation.

Sincerely,
Rainey Kreis

Informed Consent to Participate in Human Subject Research

Please read the information below before following the link at the bottom of the page that will take you to the questionnaire.

Dr. Richard Wilke, Distinguished Professor at the University of Wisconsin-Stevens Point, and graduate student Rainey Kreis are conducting a study to evaluate the extent to which the Applied Environmental Education Program Evaluation course contributes to the ability of AEEPE course participants to evaluate their environmental education programs. You are being asked to participate in this study by completing the AEEPE post course questionnaire.

This questionnaire is intended to evaluate the use of program evaluation, evaluation plans, and evaluation tools by AEEPE course participants. The questionnaire is an online form that can be completed and submitted online. The form should take approximately 30 minutes to complete. The questionnaire will ask you about your experience with program evaluation after completing the AEEPE course, the barriers that you have encountered, and your interaction with others related to program evaluation. The questionnaire contains questions that can be answered by participants who have little or no experience with program evaluation after completing the AEEPE course.

By participating in this study you will contribute valuable information to the field of environmental education and assist us in identifying if the AEEPE course is actually contributing to increased program evaluation in the EE field, as well as improvements in EE programming as a result of the use of evaluation.

The answers that you provide will be recorded in a confidential form. You will be asked to report your name on the questionnaire form. This information will only be used to track who has submitted a response to the questionnaire so that we do not solicit a second response from you and so that we can track any inadvertent multiple submissions from the same participant. Upon receipt of you responses, your name will be removed from the data set. The responses that you submit will not be available to be viewed by anyone other than Rainey Kreis. None of the data that is published or viewed by anyone other that Rainey Kreis, will be linked to you or include your name.

If you want to withdraw from the study, you may do so without penalty, but we greatly value your input and hope that you will choose to participate.

If you have any questions or concerns, please contact:

Rainey Kreis
Environmental Education Training and Partnership
University of Wisconsin – Stevens Point
College of Natural Resources
Stevens Point, WI 54481
(715) 346-4748
rkreis@uwsp.edu

If you have any complaints about your treatment as a participant in this study, please contact:

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Institutional Review Board for the Protection of Human Subjects
Communications Department
University of Wisconsin – Stevens Point
Stevens Point, WI 54481
(715) 346-3712

Although Dr. Ferrante will ask your name, all complaints are kept in confidence.

Your completion and submission of the AEEPE questionnaire to the researchers represents your consent to serve as a subject in this research.

To access the questionnaire, click here!

If you are not able to link directly to the questionnaire from this email, please cut and paste this address into your web browser:
https://forms.uwsp.edu/cnr/eetap/1year_post_course_questionnaire-evaluated.htm

Rainey Kreis
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College of Natural Resources
Stevens Point, WI 54481
Phone: (715) 346-4748
Email: rkreis@uwsp.edu
www.eetap.org

Applied EE Program Evaluation

1-Year Post Course Questionnaire

Thank you for taking the time to complete this questionnaire.

Six months ago I sent you a questionnaire requesting information about how you had used the evaluation skills gained in the AEEPE course. You indicated that you had implemented some or all of the evaluation plan that you developed during the AEEPE course. We would like to know how you have continued to implement your evaluation plan, now that over one year has passed since you completed the AEEPE course.

Many of the questions below provide options from which you can select an answer. You may select your preferences by clicking on the dot or bullet that precedes each option. If your answer is not provided, please select 'other' and explain in the space provided. A few questions provide a space for you to type your answer. Please try to answer the questions as completely as possible.

The questionnaire should only take 20 minutes to complete. When you are finished, do not forget to click the "Submit" button.

Please contact Rainey Kreis (rkreis@uwsp.edu or 715-346-4748) if you have any questions.

Name:

Email address:

Agency or organization:

Position:

Number of people served each year by programs offered through your agency or organization:

Directions: Please "click" on the dot or square next to the answer of your choice. For some answers you may select more than one response. When a question asks for an explanation, you can type your response directly into the box below the question.

1. In the initial 6-month post course questionnaire, you indicated that you had implemented part or all of the evaluation plan developed during the AEEPE course.

In the last six months, have you continued to implement your evaluation plan, analyzed data collected with your evaluation tool, reported your results or made changes to your program(s) based on the conclusions and results of your data?

   ☐ Yes   ☐ No

If you answered "No" to item #1, please skip ahead to question #16. To skip ahead please CLICK HERE.

Program Evaluation Plan Implementation

2. If you answered "yes" to item #1, to what extent have you implemented your program evaluation plan? (check all that apply)

- ☐ I revised the tool(s) that I developed in the AEEPE course to better fit my program.
- ☐ I evaluated program inputs (investments)
- ☐ I evaluated program outputs (activities and/or participation)
- ☐ I evaluated short term outcomes (learning - knowledge, attitudes)
- ☐ I evaluated medium term outcomes (actions - behaviors, decisions)
- ☐ I evaluated long term outcomes (conditions - changes to the environment)
- ☐ I developed a format or data entry system for compiling the data gathered from the evaluation(s)
- ☐ I analyzed the data collected from the evaluation(s)
- ☐ I reported the results of the data analysis

☐ I made changes to the program(s) based on the results from the data

☐ Other (Please explain)

[text box]

3 . What evaluation tool(s) have you used to conduct your evaluation? (Check all that apply)

☐ Structured Observation   ☐ Open-ended Observation

☐ One-on-one Interview   ☐ Focus Group Interview

☐ Pre/Post testing   ☐ Questionnaire

☐ Portfolios   ☐ Concept Map

☐ KWL Chart   ☐ Journals

☐ Other (Please Explain)   ☐ Not Applicable

[text box]

4. What aspect(s) of the program(s) have you evaluated? (Check all that apply)

☐ Program content

☐ Program delivery

☐ Program ability to meet EE guidelines

☐ Attendance of program

☐ Participant knowledge gain/attitude change

☐ Staff knowledge and/or skills

☐ Participant satisfaction

☐ Participant behavior

☐ Achievement of program objectives

☐ Learner short term outcomes

☐ Learner medium term outcomes

☐ Learner long term outcomes

☐ Other (Please explain)

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[text box]
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☐ Not Applicable

Data Analysis and Reporting

5. Have you analyzed the data collected in your evaluation?

☐ Yes   ☐ No   ☐ Not Applicable

6. What results or conclusions about your program did the analysis of the data from the evaluation identify?

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[text box]
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☐ Not Applicable

7. Have you reported the date gathered from your evaluation?

☐ Yes   ☐ No   ☐ Not Applicable

8. If you responded "Yes" to item #7, to whom have you reported the information or conclusions resulting from your evaluation? (Check all that apply)

☐ Staff
☐ Funders
☐ Administration
☐ Community
☐ Program audience

☐ Other (Please explain)

[text input field]

⊙ Not Applicable

9. Did the results of your evaluation enable you to identify any strategies for improving your program?

⊙ Yes   ⊙ No   ⊙ Not Applicable

If "yes," please describe at the strategies that you identified for improving your program.

[text input field]

Program Improvements

10. Have you made any changes or improvements to your programs as a result of your program evaluation?

⊙ Yes   ⊙ No

⊙ Not Applicable

11. If you answered "No" to item # 10, what has prevented you from implementing changes to your program based on the data collected from your evaluation? (Check all that apply)

☐ Lack of knowledge or skills required to make the needed/identified improvements
☐ Lack of participation/involvement by other staff
☐ Insufficient time to make the changes

☐ Proposed changes were not supported by the audience

☐ Proposed changes were not supported by the staff

☐ Proposed changes were not supported by administration/board

☐ Insufficient resources available to implement changes

☐ Other (Please explain)

[text box]

12. If you answered yes to item #10, what changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation? (Check all that apply)

☐ Redefined goals or objectives (Please explain)

☐ Changed program delivery (Please explain)

☐ Made changes to program to meet EE guidelines (Please explain)

☐ Changed program content (Please explain)

☐ Increased or changed staff/volunteer training (Please explain)

☐ Other (Please explain)

[text box]

◉ Not Applicable

13. How would you rate the changes that have been made to your program(s) as a result of the data gathered in the evaluation(s)?

◉ No changes

◉ Minor changes

◉ Some changes

◉ Significant changes

◉ Completely changed or redesigned the program

◉ Not Applicable

14. What new outcomes have been achieved by your program as a result of the changes
   that you made to your programs?

⬭ Not Applicable

15. Approximately how many program participants per year will benefit from program
   improvements that have been or will be made as a result of the program evaluation
   you developed in the Applied EE Program Evaluation course?

    (Enter a number)

16. Do you plan to (continue to) evaluate your program(s) in the future?

⬭ Yes   ⬭ No

Limitations

17. During the evaluation development and implementation process, was there any aspect of
   the process that you felt you were not adequately prepared for?

⬭ Yes   ⬭ No   ⬭ Not Applicable

   If you selected 'Yes,' please explain:

18. Have you encountered any barriers to implementing your program evaluation?

⬭ Yes   ⬭ No

19. If you answered "yes" to item # 18, what barriers did you encounter to implementing your evaluation? (Check all that apply)

☐ Time constraints

☐ Money Constraints

☐ Insufficient qualified staff to do evaluation

☐ Lack of confidence in ability to develop evaluation plan

☐ Lack of cooperation within organization

☐ Lack of cooperation by participants

☐ Other (Please explain)

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20. Please use the space below to provide any comments that you think could help us improve the AEEPE course or tell us more about how you have used your knowledge and skills learned in the AEEPE course.

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Thank you for taking the time to complete this survey. Please click on the 'Submit' button to submit your answers.

[Submit]

251

APPENDIX F

**Open-Ended Responses to the Spring 2006 Six Month
Post Course Questionnaire**

What results or conclusions about your program did the analysis of the data from the evaluation identify?
The goals and objectives are being met, participant behaviors are changing, and participants are increasing their knowledge.
Majority of participants achieved the short-term goals that had been set
We have not started to formally analyze the data collected, but have been reviewing student work as it is turned in to learn more about the effectiveness of the tool itself and if it does what we want it to.
Overall support for the program was high. Reasons for spotty delivery underscored the continuing need to recruit volunteer parents. . .. and more. . . .
It helped me understand what teachers were implementing, what tools they learned about at my workshop that were going to be used, it also helped identify what wasn't being used and why
Participant satisfaction and content relevance.
Program needs/improvements, areas of strength and weakness in program
Workshop is useful for attendees. Results also gave specific areas for improvement--for example: make rubric subject matter more relevant to course content, careful selection and advance preparation of members of teacher panel are needed.
I have analyzed pre-tests-Student have general sense of how the habitat we are studying and how to protect but no specifics.
That the participants had more prior knowledge than we expected so there was no significant difference between pre and post.
Am in the process, I just did my observations last week.
Data from surveys suggested programs are fun and exciting and different, but we know nothing about the knowledge level changes of the participant.
Program ends in a few weeks.
N/A because the evaluation is currently in progress.
Please describe the strategies that you identified for improving your program.
Better front end analysis, use of results in improving programs
We need to aim our program at a higher level
Implementation of an appropriate evaluation tools for each of ten ranger districts in conservation education
It's helped us to identify strategies for improving the assessment tools and how we train our instructors to use them.
I added additional information for activity use.
Results also gave specific areas for improvement--for example: make rubric subject matter more relevant to course content (we're switching from evaluating an apple using the rubric to evaluating our presentations using the

rubric), careful selection and advance preparation of members of teacher panel are needed.

What new outcomes have been achieved by your program as a result of the changes that you made to your program?
We make some changes after every workshop--based on summative evaluations. Workshop ratings are increasing.
Participants offered more diverse choices to fit their needs

During the evaluation development and implementation process, was there any aspect of the process that you felt you were not adequately prepared for?
The realities of implementation and management buy-in
need to change observation a bit for next observations - realized things need to be moved around to better observation
The bureaucracy of conducting an evaluation within the realms of the federal government!
Data analysis- but not because the of the course. I feel like what I got out of the course in this area was sufficient for my expectations- I just feel I need more now.
Data management. How should data be compiled and stored?
30% cut in all forest programs effective immediately
I just didn't have time to test the evaluations before their use

How did you overcome the barrier(s)?
Bucked up and did it.
So far, we have funded the changes ourselves. We are hoping that EENC will sponsor our workshop and provide grant funds to implement it in the EE Certification program. We will help to find appropriate grant funds.
Deal with the fact that to be successful and sustainable you must have an accountability factor to regulate and improve any program.
We are hoping to move forward again.
We had a frank discussion about the future and funding of EE and the needs to develop a solid foundation of data supporting our work, given the ever-changing nature of school administrations and support for various programs. While staff still don't like taking time out of instruction, they are willing to implement the program given the long-term support goals we have.
Focusing on a few aspects of our program to evaluate and hiring consultants to assist with evaluation and program delivery so my time can be used to do more evaluation.
I convinced our funders to pay for an external evaluation.
Our organization is implementing a formal holistic evaluation plan, of which program evaluation is a part. The ground work is just being implemented, with my experiences with the course playing a role in the plan's development.

Explanations for Reponses to Items Where "Other" was Selected
Spring 2006 Six Month Post-Course Questionnaire

What was the reason that you did not implement the evaluation plan?
Not enough schools participating in the program
I am not employed in the EE field.
Implementation is in process. Evaluation tools have been conveyed to appropriate staff member who will be implementing the items during the coming calendar year.
I was unable to complete the entire course. Therefore, I did not complete an evaluation plan. I have, however, used concepts that I learned in the first half of the course in my work. I TRULY wish that I could have completed the course, but time constraints were my major hurdle.
Program to be evaluated does not start until January 07

How have you implemented your program evaluation plan?
I used my knowledge of evaluation to guide my selection an external evaluator. The selection is still in progress.
I have used the tools I learned in this course to design the following for another program: logic model, evaluation plan, evaluation tools. I am currently in the process of evaluating the short-term outcomes using the tools I designed during the course. Data compilation and analysis will happen later.
My plan regarded the evaluation components of the Lexington Public Schools Big Backyard Program. Five of the six elementary schools had been evaluated before. I simply completed the last of the schools so that the prior evaluation was more complete.
I shared the evaluation plan I created during the course with other colleagues of mine that are implementing the same or close form of it themselves.
New KWL chart; New summative evaluation; Separate Conference evaluation Telephone interview with workshop attendees
I have used all the evaluation tools, but I haven't had a chance to analyze the results. They were tallied by someone else, but I haven't had a chance to look at the results myself and then write the report that needs to be eventually written. However, these two parts will be completed by the end of Dec. 2006.
Since the class I have joined a new organization. I have used class learning to adapt our goals and objectives, begin developing a logic model, and adapt put students pre and post test and our teacher survey.
Actually working on the analysis of the evaluations now
I have, with Janice's permission, reprinted some of her information in an Iowa newsletter for EEers.

What evaluation tool(s) did you use to conduct your evaluation?
Logic model
Alternative Assessment: Poster assessment and a journaling activity
I can't say that I performed the evaluation exactly as instructed during the course due to policy and time limitations. I was able to pilot my program to a very small number of users (about 5) and use the focus group interview I developed in the course as part of the feedback questionnaire.
I also have another that I developed as part of the class tool - journals - that I will be implementing Mar-May '07 when our 4th grade program begins. Though I have the support of my organization for the journals, I am having a hard time bringing education staff on board.
We used a chart to look at people's attitudes about animals before and after a program. We chose 5 people and told them which animals we brought for them to see and touch. We asked them if they thought they would touch them when given the opportunity and why or why not. We then asked them after the program if they did or didn't touch the animal and if they felt the same, better or worse about the animals. We only did this with two groups, so don't have much data collected.
Some new; some revised
I have used others before, but these were the two I changed/used as a result of the class

For what reason did you evaluate your program?
Expansion to workshop to be used in EE Certification program in North Carolina.

What aspect(s) of the programs(s) have you evaluated?
We are just beginning to use the action assessment materials. Jim may also be using the observation tools.

What has prevented you from implementing changes to your program based on the data collected from your evaluation?
Program only happens during certain time of year and we have not yet started this one again.
It is too soon to implement any changes. This program was grant funded, so we will apply for the grant next spring and make changes based on the evaluations then.
Although I helped found this program, I am not currently engaged in it. Parents of elementary school children run the program.
Evaluation still in progress.
The result is not yet done, data are being collected and will be analyzed later.
Will make changes in the future.

Will make changes at the end of the program for following year.
We are only just beginning in our process- right now we are pilot testing tools and evaluation questions so we are not at a point in which we are drawing conclusions about the program, only about the tools.
Working on doing that now.
Still working with project partners to identify those changes and implement during the next cycle of program

What changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation?

Added items to loaner kits in order to better meet the needs of the educator using them
We realized we need better training for instructors and volunteers
Taking this course opened my eyes to the ways I do things and self- evaluation where I was the only evaluator for most of the projects I do. I am having to go back and start from the ground up with goals and objectives before I jump into evaluating the program.
Found out that one of our activities was not grade level appropriate, so we replace it with something better.
Added break out sessions to teacher workshop to give choices related to interest.
Increased or decreased length of certain workshop segments. Increased focus on adult learners. Reinforce buzzwords used during workshop. Changed rubric example subject matter. All of this is aimed at making the workshop appropriate as a required workshop to achieve nationally accredited EE Certification in NC.

What barriers did you encounter to implementing your evaluation?

federal law about surveying participants, there are workarounds, but not enough time to really implement yet
tedious and somewhat boring
Some staff are resistant to the evaluation process as taking time out of instruction, which they feel is not justified by evaluation benefits.
Many schools have been very excited about participating, but others are worried about time constraints and their already overextended schedule.
The program director has moved to graduate school and we have to hire a new one-this job requires someone who has passed this course!!
Mostly time. Don't want to change. It is always easier to do what you have always done.
Staff and volunteer unease about the entire process

Since I am the only staff member in the Education Department, it is hard for me to do all current aspects of my job, let alone adding in the time it takes to prepare and conduct a proper evaluation of the programs. It would be great if there were more emphasis on quick and dirty evaluation techniques that I have a chance to use as opposed to evaluation techniques that take more time than I will ever have (for instance focus group and one-one-one interviews).
I found that trying to follow and comment on someone else's work was difficult - people did not post things on time, or I was too busy to take the time for a considered response/commentary. While it was useful to "meet" colleagues and have a discussion with them, there were too many other things to do for the course, so I did not participate in this aspect very much unless I felt constrained to. The information provided by the course was very useful. I wish that I had more time (and participants) to put it into practice!
it would be helpful to have tips on how to get agency buy-in to your evaluations, how do you prove that this is very important
I used this course as a building block towards the future. I am now enrolled in a graduate program in Environmental Science. I use the skills and knowledge I learned from AEEPE in my current course work.
I loved the course! Only one drawback: As a busy professional taking the course as a workshop (no credit), I found the amount of discussion time required to be very overwhelming. I understand the importance of it, but it was very difficult to manage. I would like to take the "Fundamentals of EE" course, but what is holding me back is my fear that the required course work will not match my own busy schedule--I do not want to find myself in an overload situation again.
The largest barrier we face in implementing an appropriate and meaningful evaluation plan is staff time. My organization has shown great interest in improving our evaluation methods and knowledge and I feel I can be a resource to other team members because of the AEEPE course.
I thought the course was incredibly valuable-there are at least two of us that are using the tools we worked with in programs here on the forest-thanks!
The course gave me the tools, I just have to implement them. And I will, but it will take longer than I expected, maybe up to two years to incorporate all that I want to into a proper package.
The course showed me how little I know about evaluation, and how hard it is to do it right -- or how easy it is to do it wrong! It also gave me a systematic approach to assessment and reasoned steps to follow. I will continue to learn about evaluation, and put what I have learned to use. An unexpected benefit of the course was learning how to structure and

facilitate an on-line course effectively. My own on-line teaching will be improved by my participation in the AEEPE course.
Although I wasn't able to use the evaluation plan I created for the course because the project was not funded, I have found the skill I learned valuable for other projects. I refer to the evaluation plan as an example as I create new plans for new projects.
I enjoyed the course very much, but my schedule was sort of batty during the time I took the course, so I was not able to put as much time or effort into the course as I would have liked. Thank you very much for a wonderful opportunity, I will continue to use the course in many ways in the future and hopefully, once December rolls around, I will be able to implement some the tools I designed in this course.
I enjoyed the class and felt I learned the skills to better evaluate our programs. Thanks!
One issue with the course is that the actual development through the project happened faster than I could get feedback from my peers and the professor. Changes occurred not within the timeframe of the course and the changes confused some of the assignments - making the earlier ones irrelevant with no time to update them. I'm not sure if this can be remedied within the course - unless a section can be added for urgent feedback needed - or urgent updates to project, feedback requested.
My supervisor is constantly nagging about doing more assessment and showing her the results - I wish she could better understand how much time this takes! :) I do intend to put the tools that I created in the course to use sometime this year. (I hope!!!)
This was an excellent course. Janice provided a first rate model of a good DL instructor and was (amazingly) able to encourage real discussion! As a result I am now interested in DL opportunities for our Department.
As I explained earlier, I was unable to complete the AEEPE course because of unforeseen work commitments. I deeply regret this failure on my part - and I know that the course would have been a great asset in my work. I have responded at length on ideas to make the course more compatible with busy EE professionals. It's an EXCELLENT course - and I have highly recommended it to others in the FS -- I have 'warned' them though to be ready to work and make sure they have enough free time and support from their supervisors to complete the course requirements.
I found the course extremely valuable, and have implemented the skills and strategies learned there to other programs for my organization. The changed made to our evaluation tools during the course received quite a positive response from colleagues. They responded much more favorably than in the past. I would be interested in an ongoing online group to discuss progress with other

class participants, much like the discussion board during the class. Please let me know if this is at all an option, as it would be great support to class participants to continue to exchange feedback. Thank you.
I had had little experience and formal knowledge of the process prior to taking the course. The applied approach helped me to develop personal skills while benefiting my organization. I feel that I learned not only the whats and whys of evaluation, but also the how tos!! I am grateful for the experience!
I gained confidence in applying my evaluation skills to my work, and have the background knowledge to support the necessity of using evaluation for program planning, development, and implementation
I knew very little about evaluation other than it was an important think to do and our agency wasn't doing enough of it. So going through the evaluation plan and then created tools that I could use with a particular program.
Have a degree in Education, already knew a lot of the information. Class was beneficial in reviewing and updating approaches.
Jan gave very thoughtful feedback.
Give more examples for each assignment. Some examples where not good examples or were not comprehensive enough. Also let people know how much time the class will actually take. It took a lot more time then I thought it or was told it would take. It should could as at least three credits.
Summary: I consult in both science and environmental education. During the course, I used the questionnaire chapter to complete an evaluation that had been begun on the Big Backyard Program in the Lexington Public Schools. Work that Fran Ludwig and I were doing on concept mapping was shared with Janice and ultimately published online with the papers from the Second International Conference in Concept Mapping. This course has raised the level of discourse with my colleague Ellie Horwitz, who also took the evaluation course. We have been discussing how we might implement evaluation as part of new efforts to re-energize the EIC schools in Massachusetts. And, I've used the line of logic and evaluation matrix in a small science education grant. Thank you for this opportunity. My apologies for the delay.
I have used the program objectives reading in developing all of my new programs. I also started another evaluation plan for another aspect of my program just last week, so I'm applying what I learned to completing a new evaluation plan. Advice for others: If I took the course again, I would print and keep more of the materials. I thought that since this was an online course that I would try not to print out materials, saving paper and learning to work in an online world, but I wish now that I had all the resources in written form, or at least downloaded onto my own computer. Luckily someone in my office who also took the course printed everything and I've used his binder of print outs on a couple of occasions. So, advise others to make their own course binder, or to download the materials, or maybe you could make a CD available to people who take the

course.
I really enjoyed this course and the only thing that was challenging was the pace of it, it felt kind of quick to me. I think this course is useful to folks coming into evaluation in their organization at many different experience levels, however I think it is best applied with a solid program to evaluate. I had a tough time wrapping my head around my project as it is not truly a program we are investing a lot of resources into. I still got a lot of use out of the course and the tools we developed are applicable to what I'm doing, so I felt overall successful and got lots of "food for thought" for future programming.
I did not have previous background and there was not enough time in the AEEPE course for the last segment on data analysis. I think this needs to be a separate course. So, my analysis of the evaluation tools used was to make specific corrections to content, rather than adding this to any body of research knowledge about environmental education programs.
The course helped me develop an evaluation, but it was real work. More time than I imagined. I am glad I took the class and had the experience, my first on line experience. I would really have liked to do some of the reading a head of time. Some NAI courses I am going to take (and have taken)list books to read before taking the class, that might help. I would take another course if I change jobs and don't have to work at the front desk at the same time as the course. I think some folks had the advantage of being able to do course work on the job.
This has been a very valuable course. I think this evaluation is a bit too soon.
Thanks to Janice. I think she did an excellent job. On-line courses are a bit cumbersome, but she handled the instruction well. It takes more initiative, sometimes, to ask questions on-line, however.
This course was a great start of learning how to evaluate a program...but there is so much still to learn.

APPENDIX G

Open-Ended Responses to the Spring 2006 One Year
Post Course Questionnaire

What results or conclusions about your program did the analysis of the data from the evaluation identify?
The booklet is a beneficial tool that is easy to understand and useful; participants are changing their behaviors and intend to change in the long term; the tendency is for people who already have an inclination to be "green" to participate; need to develop a way to target less "green" audiences; need to find a way to increase the participation in the actual PLEDGE - people take the information but don't turn in their pledge cards
Many! Our program is successfully meeting most of its objectives.
We have proposed the tool and are awaiting funding for implementation
The tools we analyzed were pilot tools, and so most of the analysis we did was to find out how well the tools worked, rather than about the program.
Analysis is currently in process. If you would like to see the final report, I can send it to you after I am done, which should be by the end of September. Send me an email if you would like to see it.
That some activities need to be changed to meet objectives
Please describe the strategies that you identified for improving your program.
The evaluation told us what behaviors were most difficult to adopt and where participants need more information or proper tools to adopt the preferred behavior
Curriculum revision, working more directly with school administrators
They will be reviewed with staff and corrections will be implemented in the following season
For next year, I will modify the post-test to include a box to check off whether the students in the classroom being surveyed actually came on a trip to our environmental center. Normally, a class that has come to the center takes one version of the post-test at the center before they depart. Unfortunately, some scheduling difficulties resulted in a few classes that did not receive this first version of the post-test. With the regular program, administered correctly, it is easy to I.D. the 2-3 students in each class that do not make the trip. If the entire class does not take the first post-test, those 2-3 are not easily identifiable, and have to be compiled into the class data. Adding this check-box to the second post-test will help if this scheduling error happens in the future. This year I provided a section to rank personal attitudes towards the environment (scale of 1-3)on the pre-test as well as on each post-test. These are now being compared to see if student attitudes improve as regards the environment. As the scale is subjective, and students cannot see what they chose on the pre-test, I'm not sure the data are accurately reporting student beliefs/attitudes. I am considering modifying this to ask students if they feel more or less X after completing the program. (Ex: Are you more or less

interested in going outside during your free time after your visit to HBF Environmental Center?). When data analysis is complete, the staff will decide which areas of instruction need modification to better meet student learning/attitude needs.
Have talked with providers and we discussed some things - no real strategy written up
What new outcomes have been achieved by your program as a result of the changes that you made to your program?
Presenters and learners have a better idea of what is expected and how to meet and exceed goals.
One thing is a better system for evaluation!
Too early to tell-not funded as yet...
During the evaluation development and implementation process, was there any aspect of the process that you felt you were unprepared for?
I am realizing that I needed some skills in understanding long-term monitoring/evaluation and how to measure behavioral change, ala social marketing.
The governmental red-tape...it's like a huge brick wall.
I can't seem to get agency buy-in.
Data management. How should data be compiled and stored?
Statistics!
Statistical analysis of the data.

Explanations for Reponses to Items Where "Other" was Selected
Spring 2006 One Year Post-Course Questionnaire

What was the reason that you did not implement the evaluation plan?
After a great deal of consideration and some further exploration of evaluation alternatives, our team has decided to adopt an approach based on Empowerment Evaluation. We have begun to identify our primary evaluation questions and plan to choose and develop appropriate tools to gather information. These tools may or may not overlap with the ones I developed during the AEEPE class.
Waited too long... have moved on to evaluating other programs. I do use what I learned in creating these new evaluations.
We have insufficient staff to make evaluation a reality at this time.
How have you implemented your program evaluation plan?
I provided evaluation tools to the Coordinator of the Angler Education Program and met with him about them.
Applied for funding to implement the new tool in our Alaska marine Highway interpretive programming
What evaluation tool(s) did you use to conduct your evaluation?
Evaluation form that specifies objectives for the Alaska marine Highway interpretive program and the Tongass National Forest Interpretation and Education strategy
Program logic model
What aspect(s) of the programs(s) have you evaluated?
We are just beginning to use the action assessment materials. Jim may also be using the observation tools.
What has prevented you from implementing changes to your program based on the data collected from your evaluation?
I haven't made the changes YET. I am working on expanding the pilot and will implement changes then.
What changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation?
Evaluations of staff have thrown recruitment and hiring into relief as the hiring is now being done nationwide for all 1001 GS series applicants and there is no mention of interpretive and guiding skills.
Changes will be implemented for the coming fall.
Simply having the tools available has gereated heightened awareness of the

benefits of evaluation

During the evaluation development and implementation process, was there any aspect of the process that you felt you were unprepared for?
I am realizing that I needed some skills in understanding long-term monitoring/evaluation and how to measure behavioral change, ala social marketing.
The governmental red-tape...it's like a huge brick wall.
I can't seem to get agency buy-in.
Data management. How should data be compiled and stored?
Statistics!
Statistical analysis of the data.

What barriers did you encounter to implementing your evaluation?
Our organization wants outside evaluators (consultants), not in-house evaluation. I think its lack of understanding in addition to institutional tradition to use outside evaluators.
The program director has moved to graduate school and we have to hire a new one-this job requires someone who has passed this course!!
Many schools have been very excited about participating, but others are worried about time constraints and their already overextended schedule.
Program discontinued due to budget constraints and reassigned responsibilities. May continue in future, but on hold for now
OPM guidelines as I would like to have done a questionnaire I developed also.

Participant Comments
Spring 2006 Six month post course questionnaire

The course was excellent and very useful. Thank you for offering these education opportunities.
I loved the course and learned a lot. Unfortunately, time is short at my workplace and my workload is high. I am using the information I learned in the course, but to much less depth, and on different projects.   Even though I haven't used the exact tools I developed in the course, I feel like I am looking at program development differently and feel more competent at developing evaluation tools.
Although the specific program I developed the evaluation plan for was not funded, I have used many of the techniques I learned in this course to develop and/or comment on other assessments pieces for my programs. It has also helped me work with other evaluators.
This was an excellent course. Janice provided a first rate model of a good DL instructor and was (amazingly) able to encourage real discussion! As a result I am now interested in DL opportunities for our Department. The course was/is an excellent one. Personally I would have liked to be able to spend more time focusing on ways to analyze the data we collect. However, please note that it is difficult to insert an evaluation into a large scale program which has not had one before. We have had to address the issue of staff time; funding for the preparation and mailing of materials; fear on the part of volunteer instructors and an inability to follow up on large numbers of kids. Despite this we have moved forward and now have staff willing and eager to conduct evaluations if they can do so. We are looking forward to being able to do this if we can expect that the results of evaluations and assessments will allow us to make changes if and where changes are needed.
I learned a lot from the evaluation course, and recommend it to others. That said, I used my focus group project one time, and have not used that particular aspect of evaluation since then. It was too time consuming during the workshop, for the information I gathered, and I think that other ways (somewhat adapted because of what I learned in the class) work better for my purposes. I do share resources from the class with others, and refer to them periodically for myself, and very much appreciated the course. I learned a lot. It would be great if you offered a half-day evaluation workshop over the computer for others, as I think you might get participation at something like that. Most EEers in Iowa don't seem to want to take the time to take a full class on the topic.
The course was excellent. The follow-up has been wonderful. It will take time to work in any change to a system that most people think is operating just fine. It's not. But a change will happen.
It might interest you to know that three members of SAGEE have taken the Evaluation course. While there has been little leadership in environmental education in formal educational institutions in Massachusetts, Harvard has

recently appointed Craig Crouch to an environmental education position. He is interested in evaluation of EE in Massachusetts, and we can anticipate that what we have learned in the EE Evaluation course will play into some of our broader efforts in the Commonwealth.
You may want to add a short session on longitudinal studies for assessing behavioral change. How do you measure this?
I thought the course was incredibly valuable-there are at least two of us that are using the tools we worked with in programs here on the forest-thanks! Otherwise, the course was great...one could study evaluations forever and still feel inadequately prepared...you just need to do it and obtain experience.
I still think the course was extremely helpful. I wish I knew how to approach my superiors to get some of these evaluations in place.
I am recommending others on the forest take this.
I'll be able to say more in the next 2 years as we implement and complete our study (it will start this fall).
I would like to have a forum, like the one during class, in which to communicate with others across the country who are working on similar programs. I greatly valued the feedback on the discussion boards, and it would be great to have an ongoing forum like that for mutual feedback.
The course was fantastic and has built a very solid foundation for me in my career. The biggest hurdle I face now is time and money. The evaluation plan I created from the course was a very useful tool for our team, but the entire program went on hold this year due to the budget. I highly recommend the course to my other colleagues and refer to the printouts of each chapter often.

APPENDIX H

**Open-Ended Responses to the Summer 2006 Six Month
Post Course Questionnaire**

Reponses to Open-Ended Questions
Summer 2006

What results or conclusions about your program did the analysis of the data from the evaluation identify?
Increases in presenter comfort level and application of child-centered techniques.
In terms of content we really need to complete more alignment with curriculum objectives and state requirements.
Front-End: Participants in a volunteer monitoring program want their efforts to be directed toward solving a real world issue, or contribute to a real goal. Formative: Participants are learning most of what we want them to learn in trainings. We are contributing to the overall educational goals of our division. We also identified several content areas that needed to be modified in order to better meet learner needs.
Please describe the strategies that you identified for improving your program.
Allowing more time for solo practice.
Identified and collected the measurement values for many objectives and can use those in my programs.
What new outcomes have been achieved by your program as a result of the changes that you made to your program?
More presenters involved and presenting on their own than when I took the course (not sure if changes in program are the only motivation for this).
Educators are happy and children know why the program is important. We did some of this in Math etc....
We've clearly defined our contributions to the division's overall goals, and much more clearly defined our goals for our program.
During the evaluation development and implementation process, was there any aspect of the process that you felt you were unprepared for?
Just in some cases the forms I used in the course I had to review. I looked back at the examples.
It's just a very daunting process to begin. I've found most people feel a lot more comfortable once they dive in and just try it.
How did you overcome the barrier(s)?
Lack of cooperation has been overcome with patience and sharing the results of completed evaluations.

**Explanations for Reponses to Items Where "Other" was Selected
Summer 2006**

What was the reason that you did not implement the evaluation plan?
Since the project is (extra curricular) not officially part of my job, I have not had the time this year to follow through with the implementation of my planned pre-project evaluation.
Recently received grant funding for program. Will be developing program over the next year.
Program plan was an example for me to use throughout the course, based on some previous work I had done at another job. In my current position as a research scientist, I don't do a lot of program development/evaluation.
We have not scheduled any EE programs since August 2006, due to renovation of our visitor center.
Although, I could make small changes to some of the previous evaluations of the program, I was not allowed to make any major changes. The format had to stay the same for the grant.
What changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation?
Discontinued quantitative analysis. Changes as suggested above.
The redefined goals were completed to meet the alignments with curriculum. The program delivery changed to show improvements in reflecting learning styles, dramatically. The EE guideline program changes let me know to communicate this to educators and show on paper where we are challenging ourselves to meet the EE guidelines.

Participant Comments
Spring 2006 Six month post course questionnaire

For Grad Students with projects maybe split it into 2 or three separate credits to help them start from the ground-up to evaluate need and then design/implement and finally evaluate.

I will use the evaluation tools I learned from the course when we start scheduling EE programs & our partner school & Little Naturalist programs, hopefully this fall.

Unfortunately, I have been able to implement many of the evaluation tools at this time, but certainly plan to do so in the near future.

I think the course was well-designed to empower students to use what they learn. The examples and exercises were great and the feedback we received from our instructor. I am an even bigger fan of evaluation as a result of participation in this course and constantly look for new opportunities to use my skills. Right now I am working with our audience research staff to develop instruments for our summer programming.

Comparing this online course with others it is far ahead in style and ease at which it operates.

The AEEPE course was one of the most valuable trainings I've ever taken!!!!! I use what I learned constantly, and I refer to the course materials (which I printed out) all the time. At times the process to print out everything was a bit cumbersome--is there a way to streamline that process?

Having examples of what other people have done made it not so intimidating. I could model my own work after what I saw as strengths of a given example and what would fit with my own program. After I had the foundation provided by the class (especially the documents that I produced) I felt much more comfortable revising, re-examining and tweaking those documents as time went by. It was an amazing opportunity to have professionals (not only the course instructor who was invaluable!) critique and help you improve your work.

One comment that I have is that to truly dive in, learn, and apply these concepts takes MUCH more time than estimated in the course description. This is a class that requires TIME, focus and real diligence to achieve a real understanding of evaluation. However, it's certainly worth it in my opinion. Perhaps consider increasing the number of weeks in the course, or splitting it into two courses. It was difficult to do all the readings, my own coursework, and also read and provide thoughtful comments on other's work as well.

APPENDIX I

**Open-Ended Responses to the Fall 2006 Six Month
Post Course Questionnaire**

Reponses to Open-Ended Questions
Fall 2006

What results or conclusions about your program did the analysis of the data from the evaluation identify?
Overall the program was successful, accomplished objectives, resulted in knowledge gained and an enjoyable outdoor experience.
So far, the data analysis has confirmed the tools are valid and reliable. There isn't enough time during the field trip. Teachers would like more reminders and material to help them prepare for the field trip and class visit. The program could be stronger in meeting diversity and science inquiry science standards. KBO education staff need to be clear with the scientist about expectations and flow of the field trip.
The program was successful in meeting it's objectives.
NOTE: I am currently doing the analysis for the SEA Grant meeting evaluation. The evaluation of the summer oceanography program will not be conducted until July 2007, when the program is held.
Please describe the strategies that you identified for improving your program.
A different time of year and location would help to increase attendance at the program.
One education staff needs to communicate with the scientist about roles during a field trip. More training for the scientist about education visits. Second creating optional educational materials for teachers to use in the classroom to supplement the KBO class and field visits. To give the teachers copies of the materials students will use during the visits a head of time.
Need to be a little more thorough with the field sessions.
What new outcomes have been achieved by your program as a result of the changes that you made to your program?
Stronger relationships between staff. Stronger program delivery and more hands-on materials. A program that has a stronger science inquiry component. Teachers giving positive remarks about the quality of program.
A more thorough approach to demonstrating control measures
During the evaluation development and implementation process, was there any aspect of the process that you felt you were unprepared for?
I will have a large data set. I am still learning how to analyzed the data. I will be using SPSS program. I am lucky a local college will be offering a course to

learn how to analyze my data in more detail. I am still learning how to be better at open-ended observations. I wish we had more practice. I am also learning how to really listen during interviews. I also wish I had more practice. I wish there was more resources listed for graduate students about resources for interviewing, observations, data analysis for qualitative and quantitative research.

Selection of population, size of population, response rate for questionnaire

**Explanations for Reponses to Items Where "Other" was Selected
Fall 2006**

What was the reason that you did not implement the evaluation plan?
Class only held in late winter/late summer - are planning to evaluate once it begins this summer
I thought I might adapt what I had done for another project (I realized this might be "cheating", but I'm short on time), but after rewriting it, I decided that it didn't do what I wanted and that I should do the whole process. Doing the whole process is something I learned from the class. I am also more critical of how we conduct evaluations. I hope to improve this other evaluation process this Fall when I have more time.
The scope of the program for which I developed the evaluation plan has changed significantly since the end of the AEEPE course. I will need to update the evaluation plan and rethink the evaluation tools I developed to reflect these programmatic changes before it can be implemented.
Course is still being developed. Will be able to implement sections of plan in late July 2007.
QUEENS BOTANICAL GARDEN USED MY RECOMMENDATION OUTLINE - ANOTHER CONSULTANT CARRIED OUT THE EVALUATION OF MY PROGRAM. A THIRD PARTY EVALUATION MAKES SENSE IN THIS CASE.
What has prevented you from implementing changes to your program based on the data collected from your evaluation?
Left facility before program could be tried again.
Data won't be evaluated until November when our programs end.
What changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation?
Created goals for the education department, schools program, and then for each class lesson. Through observations, we learned that students didn't understand field sketching and field marks and incorporated a picture of a bird with the students describing the field marks while the instructor draws a field sketch to show what we expect when they do the activity. A manual for scientist and educators on how to handle education visits to the bird bandings was created. All staff receives this manual. Right now in the process to create a training for both educators and scientist about education visits to the banding station.

Participant Comments
Spring 2006 Six month post course questionnaire

Somehow involve a hands-on implementation of the materials as part of the course. I'm not sure how you will do that, since the course is online, but it would be a good idea.
I would have liked more interaction with the instructor. We were graded on assignments while the instructor still had questions about our project and points would be taken off before the instructor had the answers from us. Once explained, there were no issues or anything 'wrong', but no points were added back onto the grades. If the instructor would have asked questions before or during grading, it would have been nice and less frustrating. I also asked for help on a certain topic and felt I never received it. I know several people in my class were frustrated with their grades and the lack of help they received. I did enjoy the class and appreciate the resource material.
This course was extremely time consuming. There has to be a more efficient way to teach working professionals about evaluation.
I just got a new job with the Florida State Parks System and I have already identified a number of opportunities within the scope of my job that I may be able to implement the knowledge and skills I learned from the AEEPE course. Check back with me in a year or so and hopefully I can at that time convey more examples of how I have used the program evaluation knowledge and skills in my work. Thanks!!
The reviewed "hands-on" aspect of the course (i.e. actually creating the various evaluation tools and then getting detailed feed back)was critical to the success of the course for me. I especially benefited from the detailed comments that were provided. I created all types of tools assigned, though I was only required to submit two. I would recommend that all students be encouraged to create each type of tool.
I did create a different evaluation plan and tool (questionnaire) for part of my K-12 EE Program as a result of taking the class. I implemented the needs assessment/formative evaluation part of the plan, evaluating content and delivery of the program primarily. I analyzed the data and reported results to our staff and other stakeholders within my department. As a result of the data I gathered, we will be significantly changing the delivery and content of the program that was evaluated to better reflect the needs of those surveyed. The course has proved to be useful and practical for me and for our office. I'm looking forward to continuing to use these skills in my work.

WISHED I HAD MORE TIME FOR UNIT 7 - MAYBE BREAK IT UP?

ABSOLUTELY LOVED THE COURSE AND HAVE RECOMMENDED IT TO STUDENTS AND Colleagues.

This course solidified my graduate thesis project for me and got my thesis project underway. I don't think I would have gotten as far as long or developed as quality of evaluation tools if I had not taken this course. Much of my final paper turned into parts of thesis proposal.

This course has also really benefited the organization I work with because they now are thinking how to incorporate the evaluation plan I have created for the fourth and fifth grade lessons into other grades and other educational programs. The organization now talks and thinks more like a learning organization and is consistently thinking how to improve their programs and what tools do they need to help them in improving their programs and meeting their goals.

It was a very difficult and time consuming course. However, all of the skills and concepts I learned are valuable to me.

The course exceeded my expectations and I have recommended it to my colleagues. It is an excellent extension for the NOAA training in program planning and "logic models" which I and many NOAA-Sea Grant educators have experienced.

APPENDIX J

Recommended Two Year Post Course Questionnaire

Applied EE Program Evaluation

Two Year Post Course Questionnaire

Thank you for taking the time to complete this questionnaire.

Many of the questions provide options from which you can select an answer. You may select your preferences by clicking on the dot or bullet that precedes each option. If your answer is not provided, please select 'other' and explain in the space provided. A few questions provide a space for you to type your answer. Please try to answer the questions as completely as possible.

The questionnaire should take less than 10 minutes to complete. When you are finished, do not forget to click the "Submit" button.

Please contact Ali Cordie (acordie@uwsp.edu or 715-346-4748) if you have any questions.

Name:

Email address:

Agency or organization:

Position:

Number of people served each year by programs offered through your agency or organization:

Directions: Please "click" on the dot or square next to the answer of your choice. For some answers you may select more than one response.   When a question asks for an explanation, you can type your response directly into the box below the question.

1. Have you implemented any part of a program evaluation plan that you developed during or after the AEEPE course?

   ☐ Yes   ☐ No

2. If you answered "No" to item #1, what was the reason that you did not implement the

evaluation plan?   (check all that apply)

- ☐ No program to evaluate
- ☐ Time constraints
- ☐   Money constraints
- ☐   Insufficient qualified staff to do evaluation
- ☐ Lack of confidence in ability to carry out the evaluation plan
- ☐ Not supported by agency/organization
- ☐ Lack of cooperation within agency/organization
- ☐ Lack of cooperation by participants
- ☐   Other (Please explain)

[text box]

Program Evaluation Plan Implementation

3. If you answered "yes" to item #1, how has the program evaluation plan been implemented? (check all that apply)

- ☐ Data has been collected with an evaluation tool
- ☐ The data collected in the evaluation has been analyzed
- ☐ Conclusions about the program have been identified based on the results of the evaluation
- ☐ Strategies for improving the program have been identified based on the results and conclusions from the evaluation
- ☐ Changes have been made to the program based on the results of the evaluation
- ☐ Other (Please explain)

[text box]

4. Do you plan to (continue to) evaluate your program(s) in the future?

☐ Yes   ☐ No

Data Analysis

5. What conclusions about your program have been identified based on the results of the evaluation?   (check all that apply)
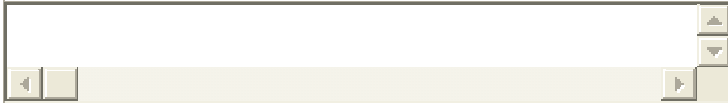
☐ The goals and/or objectives of the program were achieved

☐ The goals and/or objectives of the program were not achieved

☐ Participant satisfaction was high

☐ Participant satisfaction was low

☐ Identified strengths and/or weaknesses of the program

☐ Identified participant knowledge gains

☐ Identified participant attitude changes

☐ Identified participant behavioral changes

☐ Identified short term outcomes of the program

☐ Identified medium term outcomes of the program

☐ Identified long term outcomes of the program

☐ Identified areas for improved staff/volunteer training

☐ Other (Please explain)

☐ Not Applicable/Analysis still in process

6. Did the results of your evaluation enable you to identify any strategies for improving your program?

☐ Yes   ☐ No   ☐ Not Applicable

If "yes," please describe at the strategies that you identified for improving your program.
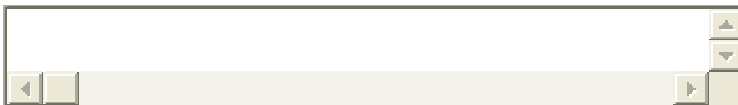
[text box]

Program Improvements

7. Have you made any changes or improvements to your programs as a result of your program evaluation?

☐ Yes   ☐ No

☐ Not Applicable

8. If you answered yes to item #19, what changes or improvements have you made to your program(s) as a result of the information gathered with the evaluation? (Check all that apply)
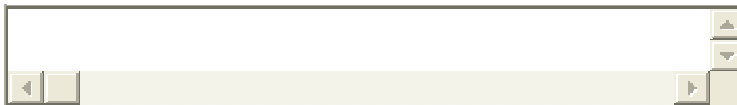
☐ Redefined goals or objectives (Please explain)
☐ Changed program delivery (Please explain)
☐ Made changes to program to meet EE guidelines (Please explain)
☐ Changed program content (Please explain)
☐ Increased or changed staff/volunteer training (Please explain)
☐ Other (Please explain)

[text box]

☐ Not Applicable

9. What new outcomes have been achieved by your program as a result of the changes that you made to your programs?   (check all that apply)

- ☐ Increased participant satisfaction
- ☐ Increased involvement of stakeholders
- ☐ Improved program alignment with state education standards
- ☐ Improved program alignment with NAAEE Guidelines for Excellence
- ☐ Increased participant knowledge gain/environmental literacy
- ☐ Increased participant behavioral changes
- ☐ Increased participation in the program
- ☐ Improved staff/volunteer satisfaction
- ☐ Increased funding for the program
- ☐ No new program outcomes
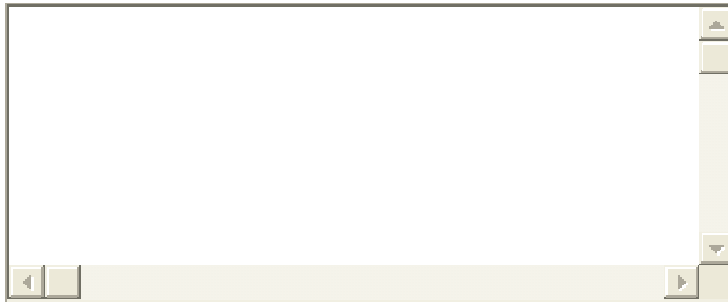- ☐ Other (Please explain)

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- ⊙ Not Applicable

10. Approximately how many program participants per year will benefit from program improvements that have been or will be made as a result of the program evaluation you developed in the Applied EE Program Evaluation course?

[   ] (Enter a number)

Please use the space below to tell us more about how you have used your knowledge and skills learned in the AEEPE course. You may also use this space to explain how you implemented your evaluation plan if your plan addressed front end evaluation for program development or evaluated an EE tool or component that did not fit into the definition of "program."

Thank you for taking the time to complete this survey. Please click on the 'Submit' button to submit your answers.

Submit