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The Implementation and Evaluation of the
Decision-Oriented Educational Research (DOER) Paradigm
in a Non-Traditional University Academic Program

by
Lynn A. Wild
B.S., State University College at Buffalo, 1977
M.Ed., State University of New York at Buffalo, 1982

Submitted to the Graduate Faculty in the School
of Education in partial fulfillment of
the requirements for the degree of
Doctor of Philosophy

University of Pittsburgh
1986
### FINAL REVIEW COMMITTEE

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**Date** July 3, 1986
The Implementation and Evaluation of the
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in a Non-Traditional University Academic Program

Lynn A. Wild, Ph.D.
University of Pittsburgh, 1986

This study implemented the Decision-Oriented Educational Research (DOER) paradigm developed by William Cooley and William Bickel (1985) and evaluated the effectiveness of this paradigm in a non-traditional university academic program. The main features of the DOER paradigm are: a client-centered orientation; a methodologically eclectic approach; monitoring and tailoring; an emphasis upon computer-based information systems; use of program documentation; and use and dissemination of evaluation results.

The study recorded, documented and analyzed all interactions between the primary client and the researcher. This analysis identified and assessed recurring themes in the perceptions and observations of the researcher regarding the implementation and effectiveness of the DOER paradigm. It also provided depictions of the primary client and the researcher's specific interactions. Specific changes in or the development of program policies were recorded and analyzed to determine what impact, if any, DOER had upon policy formulation. The primary client's interview responses were summarized and analyzed to assess his opinions and perceptions on the effectiveness of DOER in aiding his policy decisions.

The major findings of this study included: (a) A methodologically eclectic approach was needed to address the primary client's
information request: (b) In order to use a methodologically eclectic approach, the researcher should be well-versed in several research methods and have an adequate knowledge of all the research methods with a staff or available consultants able to utilize the required or desired methodology; (c) Computerized information systems are important for ease of data collection and analyses required when taking a methodologically eclectic approach; (d) The primary client's use of the evaluation results was of a conceptual nature--the evaluation findings influenced the primary client's thinking.
ACKNOWLEDGEMENT

The author wishes to acknowledge those individuals who served on the doctoral committee for this dissertation: Dr. David Champagne, my Research Advisor, for his careful review and suggestions at each stage of the dissertation process; Dr. John Bolvin, for his interest, suggestions, guidance, and time spent working with me until the completion of this research; Dr. William Cooley, for his special expertise and rational, meaningful perspective to research, and Dr. William Bickel, for his valuable insights and constructive recommendations.

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IN MEMORIAM

John L. Morgan
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I. Introduction

A. Background

Although the beginning of educational program evaluation can be traced as far back as 2200 B.C., it was the enactment of the Elementary and Secondary Education Act (ESEA) in 1965 that marked the advent of tremendous growth and interest in the field of evaluation.

Prior to 1965, educational program evaluation had been sporadic. The Tylerian model, which focused upon the achievement of educational objectives, and measurement-centered evaluation, were the only two evaluation alternatives educators had to work with. Because these two alternatives were found inadequate for the evaluation requirements mandated by the ESEA, educators, researchers, and scholars began to develop other evaluation models and conceptualizations.

Several issues emerged from these models and conceptualizations:

- the underlying value structure of objectives was called into question; goals as well as performance were subject to judgment; the evaluator was urged to take up the role of judge; the possibility of organizers other than objectives were suggested; the need for specific standards was expressed; the utility of comparative studies was called into question. (Guba & Lincoln, 1981, p. 11)

Despite dissatisfaction with the Tylerian approach, models developed by Metfessel and Michael and Hammond were objectives-oriented. A second grouping was judgmental models in which the evaluator played a judgmental role. The works of Cronbach, Scriven, and Stake were representative of this category. Decision-facilitation models, as exemplified by the works of Provus, Alkin and Stufflebeam,
focused upon serving decision makers. Scriven, in an effort to reduce bias in evaluation, proposed a "goal-free" model. Eisner's connoisseurship approach represented the first departure from rational-scientific models.

A problem that concerned evaluators, regardless of what model was selected, was the utility of the evaluation. In 1973, Robert Stake proposed an evaluation model which he referred to as responsive. The model differed from the preordinate models (which, according to Stake, emphasized program goals, used objective tests, and research-type reports) because its organizer was the purposes and information needs identified by the various audiences or stakeholders of the program. It was Stake's contention that the usefulness of the evaluation would increase greatly because the evaluation addressed the various stakeholders' information needs. Several models have since built upon and refined Stake's ideas (Hamilton, 1977; Parlett & Hamilton, 1972; Patton, 1975).

Decision-Oriented Educational Research (DOER), developed by William Cooley and William Bickel, incorporated many of the ideas inherent in the responsive evaluation approach with some important differences. Like responsive evaluation, DOER was client-oriented, however, Cooley and Bickel (1985) contended that, "attempts to serve multiple clients (as in responsive evaluation) risked the danger of not serving any client well" (p. 4). Therefore, DOER served a primary client, usually one individual, as opposed to a multitude of people.

DOER was broader than, and not restricted to, summative program evaluation. DOER's emphasis was on formative, proactive
evaluation rather than summative evaluation which, according to Cooley and Bickel (1985), had overly dominated the field of evaluation.

B. Rationale for the Study

DOER has been used successfully in the context of basic educational systems. A non-traditional academic program, which had been in existence for 13 years, was being subsumed by a college within a large urban university. Prior to this reorganization, the program had functioned as a self-contained unit. No evaluation of this program nor of any of its components has been conducted in several years. Decision-making regarding program policy was imminent due to the transfer. DOER is a client-centered paradigm which is intended to aid in educational decision-making processes. DOER has not been implemented in a university nor in a non-traditional program setting. For these reasons, an evaluation of this paradigm with such a program was needed.

C. Statement of the Problem

The purpose of this study was to implement the Decision-Oriented Educational Research (DOER) paradigm and evaluate the effectiveness of this paradigm for evaluation in a non-traditional university academic program setting.

D. Research Questions

1. Were there problems inherent in implementing the DOER paradigm for a non-traditional university academic program?
2. How effective was the DOER paradigm in assisting the decision-maker for this program in policy formulation?
E. Delimitations of the Study

1. The study was conducted on one particular non-traditional university academic program. This particular program was selected because it was undergoing a transition, had not been evaluated in several years, and policy decisions were imminent.

2. The primary client was identified by the researcher. This individual served as the primary client because he was the decision-maker for the program.

F. Limitations of the Study

The limitations of the study were:

1. Non-traditional university academic program's components selected for evaluation did not allow for full evaluation of the DOER paradigm. This study was limited to an examination of the following features of DOER: the primary client-researcher dialogue; the methodologically eclectic approach; the use of computerized information systems and the utilization and dissemination of evaluation results.

2. Data selection and presentation were dependent upon the informational needs of the primary client.

3. The willingness and ability of the primary client to respond in an accurate and timely fashion determined the ability of the researcher to establish an on-going dialogue.

4. Some decisions regarding the program had to be made prior to the completion of this study.

5. Little literature is available on the evaluation of university non-traditional academic programs.
G. Definition of Terms

1. Concern - any matter of interest or importance to the client of the evaluation.

2. Decision-Oriented Education Research (DOER) - applied educational research designed to be immediately useful to those who were responsible for educational systems, either in the role of policy setting or in administration and management—decision-oriented inquiry.

3. Effectiveness - ability to produce the desired results of providing useful information to the primary client for decision making.

4. Evaluation - a systematic, cyclical process aimed at assisting clients in decision-making for program improvement. The process took place within and for an education system.

5. Issue - any statement, proposition, or focus that allowed for the presentation of different points of view, a point of contention.

6. Non-traditional academic program - an educational program which deviated in some way from the procedures, instructional design and methodology, student, or program characteristics which were viewed as being traditional forms of higher education programs. For example, a university external education program was a non-traditional program.

7. Primary client - the individual or individuals identified for a piece of Decision-Oriented Education Research (DOER). This client was involved in the design, analysis, and dissemination stages of the work through on-going dialogue with the researcher.
8. **Stakeholders** - those individuals who were involved or interested in the program—who have a "stake" in the program; for example, taxpayers, students, program staff, instructors.
II. Review of Literature

A. Introduction

This review of literature examines the major movements and trends in the development of educational program evaluation. The review then presents a detailed examination of individual models used in the field. The final sections of the review of literature present the history of non-traditional university academic programs. This section concludes by critiquing evaluations of several non-traditional university academic programs.

B. The Development of Educational Program Evaluation

Although many authors began their examination of educational program evaluation from the 1930s with Tyler and Smith's evaluation of the Eight Year Study or from the 1960s with the enactment of the Elementary and Secondary Education Act (ESEA), evaluation has had a much longer history.

In 2200 B.C., a Chinese emperor required his officials to take civil-service examinations every third year to measure their proficiency. Although the exact content or methods of testing utilized then are not known, he was often credited with the first evaluation (DuBois, 1965). It is not known whether his evaluation resulted in any improvement of the Chinese Civil Service.

In presenting a background on the development of education program evaluation, the author made use of classifications of
several authors, especially Cronbach and Associates (1980) and Madaus, Scriven and Stufflebeam (1983).

Cronbach and Associates (1980) referred to three distinct periods of change and growth in evaluation, each of which was rooted in the ideals of governance of the time. They referred to 1600 to 1900 as a time when enlightenment philosophy moved to reformist research. Madaus, Scriven and Stufflebeam (1983) described six periods in the life of program evaluation. Much like Cronbach and Associates, they viewed the period prior to 1900 as an age of reform.

During this period, evaluations were used in an attempt to reform educational, medical and social welfare institutions. While their goal was to change and improve, Madaus, Scriven and Stufflebeam (1983) noted that the evaluations of these social agencies and functions were informal and impressionistic in nature.

"Joseph Rice's 1897-1898 comparative study of the spelling performance of 33,000 students in a large city school is recognized as the first evidence of program evaluation recorded in the United States" (Madaus, Scriven & Stufflebeam, 1983; Worthen & Sanders, 1973). Rice's study, which was conducted just prior to 1900, marks a shift towards more formal methods of evaluation. Madaus, Scriven and Stufflebeam (1983) referred to the time period of 1900-1930 as The Age of Efficiency and Testing. Cronbach and Associates (1980) viewed Rice's work as exemplifying the pioneering enterprise they found indicative of both the activism and passivity among American social scientists between 1900 and 1960. While Rice's evaluation certainly influenced future evaluation practices, the evaluation's effect was just the opposite of what he intended.
Robert Thorndike was an early proponent of measurement technology, which relied heavily upon standardized tests and surveys, focused more upon outcomes than goals, and dominated evaluation in the United States from 1900-1920.

Twenty years after the measurement movement took hold, William Reavis (1938) observed that the measurement movement made possible great advances in educational administration.

The classification of pupils, appraisal of pupil progress, diagnosis of learning disabilities, and promotion of pupils were among the problems of administration which could be studied objectively and scientifically as a result of the measurement movement. (in Merwin, 1969, p.11)

Guba (1969) credited the measurement movement for making technically feasible the evaluation movement which followed it.

The instrumentation developed by measurement experts provided the conceptual basis for evaluation . . . the use of measurement devices resulted in scores and other indices that were capable of mathematical and statistical manipulation, which in turn rendered possible the handling of masses of data and the easy comparison of individual or classroom scores with group norms. (p. 31)

Guba, with Lincoln (1981), in reflecting upon measurement technology 60 years later, also had less laudatory comments regarding measurement focused evaluation:

evaluation and measurement were virtually interchangeable concepts; both measurement and evaluation were inextricably tied to the scientific paradigm of inquiry; evaluation and measurement were focused on individual differences--and, as far as education was concerned, on a narrow range of differences relating to subject matter content; evaluation and measurement had little relationship to school programs and curricula; evaluation was oriented to standardized and objective measures that were norm referenced; and, lastly, evaluation and measurement as conceived fit in well with the prevailing industrial metaphor that was guiding the schools. (pp. 2-3)
Nineteen-thirty through 1945 was viewed by Madaus, Scriven and Stufflebeam (1983) as the age of Tyler. Tyler's design and implementation of an evaluation, called The Eight Year Study, continues to have influence on evaluation practices today.

Tyler's (1942) general procedure for developing an evaluation program included seven major steps:

1. Formulation of objectives
2. Classification of objectives into major types
3. Definition of objectives in behavioral terms
4. Suggestion of situations in which the achievement of objectives would be shown
5. Selection and tryout of evaluation methods
6. Development and improvement of appraisal methods
7. Interpretation of results

Proponents of Tyler's model liked its common sense appeal and systematic logic. Educators felt comfortable with its use of familiar technologies of behavioral objectives and standardized testing.

Critics of Tyler's model observed that the determination of whether goals and objectives had been achieved was unimportant if the goals and objectives were not worthwhile. Often program objectives were vague, general or too broad. The information obtained from objective-based evaluations was often too narrow in scope to provide an accurate basis for judging the worth of a program.

Another influence on educational program evaluation at this time was the accreditation movement. The accreditation movement was pioneered by The College Entrance Examination Board in 1901, grew
stronger in the 1930s, with the establishment of formal accrediting agencies for schools and colleges, and still exists as an evaluation practice today.

The basis for evaluation used in an accreditation study was usually the guidelines adopted by the accrediting body. Methodology used in accreditation studies included self-study and self-reporting by the individual or institution.

The approach was attractive because the evaluation could be completed quickly with timely results, evaluators were usually experts in the field being evaluated and, because evaluations were completed on site, most program factors were taken into account automatically.

Because accreditation studies relied heavily upon internal evaluators (individuals closely associated with the program under consideration), problems with accreditation studies included questions about the method's reliability and objectivity. As Floden (in Madaus, Scriven & Stufflebeam, 1983) observed:

Socialization into the profession leads them to take questionable practices for granted. Professional ties to other members of the profession may weaken or eliminate criticism, and the accreditor may feel that criticism of the program reflects on him or her as a member of the profession. Finally, the accreditor holds little power to enforce changes. (p. 272)

Other weaknesses of accreditation studies included their emphasis on summative results, focus on preestablished goals and lack of standards based on research and quantitative social science techniques (Floden, 1983; Guba & Lincoln, 1981).

Nineteen-forty-six until 1957 was labeled as The Age of Innocence by Madaus, Scriven and Stufflebeam (1983).
While there was great expansion of education, optimism, plenty of tax money, and little worry over husbanding resources, there was no particular interest on the part of society in holding educators accountable. There was little call for educators to demonstrate the efficiency and effectiveness of any developmental efforts. Educators did talk and write about evaluation, and they did collect considerable amounts of data. However, there is little evidence that these data were used to judge and improve the quality of programs or even that they could have been useful for such a purpose. (p. 10)

The 1960s marked an important redirection for educational program evaluation. The launching of the Russian satellite Sputnik in 1957 shook America's confidence—particularly in its secondary school math and science curriculums. The National Defense Education Act, introduced in 1958, emphasized science and math focused curriculum development projects. In 1965, the United States Congress began deliberations on a new bill—the Elementary and Secondary Education Act (ESEA)—which if enacted would result in thousands of federal grants being awarded to schools and universities. The primary goal of the act was to aid in the upgrading of education of children from low income families. The federal money came with a condition, however, accountability to the government. For two of the five titles within the act, educators had to conduct an evaluation showing what effects had resulted from their expenditure of federal funds.

adequate procedures, including provision for appropriate objective measurements of educational achievement, will be adopted for evaluating at least annually the effectiveness of the programs in meeting the special educational needs of educationally deprived children. the local educational agency will make an annual report and such other reports to the State educational agency, in such form and containing such information, as may be reasonably necessary to enable the State educational agency to perform its duties under this title, and will keep such records and afford such access thereto as the State educational agency may find necessary to assure the correctness and verification of such reports. (Public Law 89-10, 1965, p. 31)
Most educators were without the expertise to conduct adequate evaluations. The lack of knowledgeable personnel coupled with inadequate guidelines from the United States Office of Education resulted in evaluation reports which were dismal failures (Guba, 1969; Guba & Lincoln, 1981; Stufflebeam et al., 1971; Worthen & Sanders, 1973).

The failings of evaluation at that time were recognized by researchers, educators and scholars. In 1969, Guba summarized these failings:

1. evaluation was being avoided at all levels
2. much anxiety afflicted the practitioner and professional evaluator when they set out to perform an evaluation--primarily due to the ambiguities of the evaluation process
3. lethargy, lack of responsiveness, and immobilization surrounded the schools' responses to evaluation
4. vague and meaningless guidelines
5. evaluation consultants continued to give misadvice
6. no significant findings were being reported as a result of evaluations (pp. 30-31)

Crucial weaknesses contributed to the failure of evaluation.

Guba (1969) identified the following issues which needed to be addressed to make evaluation useful: adequate definition of evaluation; adequate evaluation theory; knowledge about decision process; clear criteria; mechanisms for organizing, processing, and reporting evaluative information; and trained personnel.

Similar feelings, as those reported by Guba, about the state of evaluation led the Phi Delta Kappa Commission on Evaluation to conclude that: "Evaluation is, to choose a metaphor, seized with a great illness" (Stufflebeam et al., 1971, p. 2). The Commission
went on to list several symptoms of the illness, among them:
inadequate evaluation theory; no agreement for specification of the
types of evaluation information which are most needed; lack of
appropriate instruments and designs; lack of good systems for
organizing, processing, and reporting evaluative information; and
lack of sufficient numbers of well-trained evaluation personnel
(Stufflebeam et al., 1971).

The development of program evaluation has gone through
distinctive periods of growth and change. In the late 1800s the
evaluations of the day were guided by a desire to reform social
welfare institutions and programs. The first three decades of the
twentieth century witnessed an emphasis upon systematic evaluation
with the testing/measurement movement. Tyler's influence, which
dominated the field of evaluation from 1930 through 1945, focused an
awareness upon educational objectives and outcomes. Although eval-
uation was being discussed and written about in the late 1940s through
1950s, educators were not held accountable at that time and the
evaluations produced had little effect on program improvement.

Nineteen sixty through the early 1970s was a period of change
for program evaluation. Referred to as the Age of Expansion by Madaus,
Scriven and Stufflebeam (1983) and a time where evaluation was linked
to political leadership by Cronbach and Associates (1980), both
categories are accurate descriptions of the state of affairs at that
time. The federally sponsored Elementary and Secondary Education Act
(ESEA) forced educators to evaluate their programs in order to be
eligible for federal funds. When school districts began to respond
to the evaluation requirements of the ESEA, they quickly found that
the existing tools and strategies employed by their evaluators were largely inappropriate to the task. Dissatisfaction with and the consistent negative findings of these evaluation efforts prompted researchers, educators and scholars to develop conceptualizations and models for evaluation. Madaus, Scriven and Stufflebeam (1983) described this period of growth and development, beginning about 1973 and continuing at present, as The Age of Professionalization. The educational program evaluation models described in the next section are indicative of evaluation's metamorphosis into a distinct specialty area within education.

C. Educational Program Evaluation Models

Section C of this review examines the major educational program evaluation models which emerged during the period following the passage of the ESEA until the present.

Largely as a result of the inadequacy of evaluations conducted at this time, educators, researchers and scholars began to develop models and conceptualizations for evaluation. Guba and Lincoln (1981) noted several issues which emerged in the models and scholarly papers produced post ESEA. The use of objectives as the focus of evaluation, was questioned. At the same time, other organizers for evaluation were being considered. A need for specific standards became clear. The emergence of new concepts provided the evaluator with a new vocabulary and greater conceptual strength.

Alkin and Fitz-Gibbon (1975) and Rose and Nyre (1977) saw a need for more application and implementation of the models and conceptualizations. While the models might be theoretically sound, they contended, they did not necessarily lend themselves to actual use.
Indeed, despite the proliferation of literature describing evaluation models and conceptualizations, few casebooks or case studies describing real-world evaluations in the context of recommended evaluation models and paradigms were found.

Table 1 provides an overview of major models which have been developed post ESEA. The description includes the model's title and developer, major features, strengths and weaknesses.

Despite dissatisfaction with Tyler's program objectives-centered model for ESEA-sponsored evaluations, Metfessel and Michael (1967) and Hammond (1973) developed evaluation models with the purpose of determining if program objectives had been achieved. Another similarity between the two models was the importance they placed upon and provisions they made for the direct involvement of local personnel in the evaluation process.

Robert Stake's (1967) Countenance Model distinguished between formal and informal evaluation and placed great emphasis upon the evaluator's professional judgment. Informal evaluation relied upon casual observation, implicit goals, intuitive norms and subjective judgment. Stake (1967) believed informal evaluation was of variable quality. Formal evaluation was less subjective than informal evaluation. Its methodology included checklists, structured visitation by peers, controlled comparisons and standardized testing of students.

About the same time that the Countenance Model was being introduced, Michael Scriven presented his classic paper, "The Methodology of Evaluation". Scriven (1967) clarified, developed and discussed ideas and concepts which are still important in educational
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<th>Local Level Evaluation Model</th>
<th>The Countenance Model</th>
<th>Goal-Free Evaluation</th>
<th>Connoisseurship/Art Criticism Model</th>
<th>Adversary/Judicial Model</th>
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<td>Major Features</td>
<td>Eight step flow chart that provides a step-by-step sequence for evaluation and multiple criterion measures to evaluate the effectiveness of school programs. Decisions based on achievement of program objectives.</td>
<td>Program description cube which provides guidelines for evaluation and allows for two and three dimensional interactions. Decisions based on achievement of program objectives.</td>
<td>Comprised of two data matrices, descriptive and judgment which were divided into two columns: intent and observations. Educator’s judgment critical factor in the evaluation.</td>
<td>Organizer or purpose of model was the program’s effects. Educator developed an assessment of actual effects and a profile of needs against which these effects were assessed. Evaluator's judgment crucial factor.</td>
<td>Dyad of educational connoisseur and critic -- the connoisseur appreciated characteristics/qualities, the critic described, interpreted and evaluated what he saw. Evaluator’s judgment crucial factor.</td>
<td>Utilized four stages for evaluation which contained legalistic characteristics.</td>
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<td>Strengths</td>
<td>Recognized the importance of and provided strategies for the direct involvement of members of school as participants and facilitators in evaluation process. Provided criterion measures that could be used to evaluate the effectiveness of a school program.</td>
<td>Provided training strategies for local personnel to conduct their own evaluations.</td>
<td>Provided basis for the evaluation of objectives. Emphasized judgment as a central part of the evaluation.</td>
<td>Examined both intended and unintended outcomes. Avoided “contaminating” knowledge about program goals.</td>
<td>Provided an alternative to the scientific paradigm.</td>
<td>Provided opportunities for the involvement of all parties in the evaluation process.</td>
</tr>
<tr>
<td>Weaknesses</td>
<td>Measures may yield indications of false gains/losses.</td>
<td>Setting up the description cube time-consuming and complex. Quantifying data along so many dimensions/variables difficult. Fixation on the cube.</td>
<td>No mechanism for contending with unintended effects. Model design complex and difficult to use.</td>
<td>No specificity for implementation. No guidelines on how to identify program’s efforts. Heavy reliance on competence of evaluator.</td>
<td>Heavy reliance on competence of evaluator.</td>
<td>Expensive. Problems using legalistic frameworks, biased decision makers, fallible arbiters.</td>
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<tr>
<td>Developer</td>
<td>Malcolm Provenus</td>
<td>Daniel Stufflebeam</td>
<td>Harvin Alkin</td>
<td>Robert Stake</td>
<td>William Cooley and William Nickle</td>
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<tr>
<td>Major Features</td>
<td>Purpose of evaluation to find discrepancy between performance and a standard. Five stages in the model—first four focused upon program development, final stage was a cost-benefit analysis. Provided information for decision makers.</td>
<td>Described three steps to evaluation: delineating, obtaining &amp; providing. Four decision settings within which decisions were made and four types of evaluation were described and used. Provided information for decision makers.</td>
<td>Five stages for evaluation. Client for evaluation selected goals and objectives for evaluation. Evaluator's role to provide information to client.</td>
<td>Concerns and information needs identified by stakeholders in the program were the evaluation purposes. 12 steps for conducting evaluation from initial conversation with stakeholders to assembling of formal reports.</td>
<td>Single-client orientation. Client involved in the design, analysis and dissemination of results of evaluation through mutually educational dialogue.</td>
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<td>Strengths</td>
<td>Staff involvement, Reality-orientation, Relationship between assessment and improvement.</td>
<td>Provided multiple organizers and guidelines for evaluation.</td>
<td>Client orientation increased likelihood of evaluation's results being utilized.</td>
<td>Provided information stakeholders needed and wanted.</td>
<td>Client orientation increases utility of evaluation. Mutually educational dialogue between client and researchers.</td>
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program evaluation today. Scriven contended that evaluation had only one functional role—the determination of the worth or merit of something. To that end, Scriven stressed the importance of not only determining if objectives were achieved but also of judging if the objectives were worth achieving (had merit). Scriven was first to distinguish between formative (in process) and summative (at completion) evaluations; payoff evaluation (which focused on extrinsic criteria or the effects of the program) and intrinsic evaluation (which focused on the internal characteristics of an instructional program); and comparative and noncomparative evaluations.

Five years later, Scriven (1972) proposed a radical technique for evaluation which he described as goal-free. In direct opposition to goal-based evaluation, which focused on the achievement of program goals, Scriven's model examined the outcomes of the program, intended as well as unintended. To conduct a goal-free evaluation, the evaluator developed an assessment of actual effects and a profile of needs against which the importance of these effects could be assessed, while avoiding any "contaminating" knowledge regarding program goals.

While Alkin (1975) doubted whether many program directors would favor an approach that might result in the evaluator missing what they viewed as the point of a program, Guba and Lincoln (1981) saw Scriven's model as revolutionizing thinking about evaluation because it demonstrated that evaluation could occur in the absence of information about objectives.

The Connoisseurship or Art Criticism model developed by Elliot Eisner (1976) represented the first departure from the rational-scientific models that had prevailed. Eisner regarded teaching as an
activity that required artistry and saw evaluation as analogous to art criticism. Eisner saw his model as a supplement, rather than an alternative, to scientific procedures for describing, interpreting and evaluating educational settings.

Eisner (1972) found limitations with the scientific, educational research of the day. He believed inadequate attention was given to distinguishing between findings that were statistically significant and those that were educationally significant. A second problem was the tendency to reduce educational problems into forms that fit research paradigms instead of finding research and evaluation procedures that fit the problems. Eisner believed too little attention had been paid to the assessment and description of the environment which affected student behavior. There was a failure to recognize the difference between what students would do and what they could do. Lastly, Eisner found the treatment provided by experimental research was too brief.

Guba and Lincoln (1981) credited Eisner's model with being the first to break clean of the scientific paradigm, as well as having provided a new perspective about how to make evaluations. They also noted deficits in the model. It failed to provide operational guidelines for the evaluator who would follow it. It placed too high a premium on the competence of the evaluator and proposed a methodology not subject to the usual criteria for methodological adequacy.

The Judicial Evaluation Model (JEM) outlined by Wolf (1979) was comprised of four stages which contained legalistic characteristics. The JEM began with issue generation and selection. Once issues were identified, arguments were prepared which involved two sides building
cases, much like a court proceeding. The final stage of the model was for clarification where a public presentation of the data was made. Recommendations were then made based on the evidence presented.

Wolf (in Madaus, Scriven & Stufflebeam, 1983) contended that the JEM provided an opportunity for broad public participation in dealing with controversial, ambiguous, and complex sets of issues while providing a framework that extended beyond what had been traditionally accomplished.

Popham and Carlson (1977) noted several serious deficits in the model when it was used in evaluating a team-teaching program in Hawaii: disparity in proponent prowess, fallible arbiters, excessive confidence in the model's potency, difficulties in framing the proposition in a manner amenable to adversary resolution, biased decision makers and excessive costs.

While the evaluation models of Stake (1967), Scriven (1972), Eisner (1976) and Wolf (1979) have many distinguishing features, they all placed great emphasis upon the evaluator's professional judgment.

Provus (1971) began his work on Discrepancy Evaluation in 1966. Through the implementation of his model in two school districts, Provus concluded that evaluation had to do with a discrepancy between performance and a standard, the conveying of information about the discrepancy and the use of the information in a feedback loop that would be useful to program managers.

Strengths of the model were its inclusion of staff involvement, reality-orientation, symbiotic relationship between program and evaluation, access to data, comprehensiveness, interdependent nature of assessment and improvement. Criticisms of the model included its lack
of rationale for the five stages, lack of a method to evaluate the evaluation process, costliness and need to address multiple audiences (Stufflebeam, Guba, Foley & Tyler in Provus, 1971).

Stufflebeam's Context-Input-Process-Product (CIPP) model approached evaluation from four different settings within which decisions occurred and the types of decisions that might be made.

Stufflebeam's (1971) model included four types of evaluation: (a) content; (b) input; (c) process; and (d) product.

Although the CIPP model was intricate and used complex terminology, it had been used successfully for educational program evaluations (Findlay, 1971, Stufflebeam, 1966). It was one of the first full-scale models which focused on the information needs of decision-makers.

Webster (in Brandt, 1981) showed how CIPP could be used in evaluating a middle school humanities program. Webster (1981) noted that continuous interaction between program personnel and the evaluator was necessary if the information was to be useful. Webster also observed that while maintaining a close relationship, the evaluator should retain independence from the program. Webster (1981) concluded that evaluation was a continuous and essential part of any program implementation. While many educators believed evaluation was too costly, Webster stressed its importance for administrative decision-making.

Guba and Lincoln (1981) found both advantages and disadvantages of the CIPP model, noting on the positive side that it, expand(ed) the list of available organizers for evaluation . . . was rational and systemic in its approach and . . . it was very well
operationalized with guidelines available for almost all applications" (p. 16). Disadvantages of the model included its
unwarranted assumptions about the rationality of decision makers . . . the openness of the decision-making process and . . . the ease with which operational decision makers can be identified . . . it failed to deal directly with the question of values and standards (and) . . . it proved difficult to operationalize; it was hard to mount and administer, as well as expensive to maintain. (p. 16)

The Center for the Study of Evaluation (CSE) model, developed by Marvin C. Alkin at the UCLA Center for the Study of Evaluation, was influenced by and very similar to the CIPP model with the exception that Process Evaluation in CIPP had been reconceptualized in CSE. Alkin created two subdivisions--program implementation and program improvement--from what Stufflebeam referred to as process evaluation.

Alkin (1969) viewed the first four stages of Provus' Discrepancy Model: definition, installation, process and product, similar to stages two through five of his CSE Model.

Alkin (1975) like Stufflebeam, stressed the importance of identifying the decision audiences and framing the relevant decision questions so that the evaluation could be directed toward the pursuit of information both relevant and important.

Alkin believed that decision needs differed significantly depending on the stage of program development. According to Alkin (1975), the client for whom the evaluation was conducted was the one to select goals and objectives and pass judgment. The evaluator's role was to provide information to the client. Alkin believed this approach would increase the likelihood that the evaluation would be accepted and utilized.
The decision-facilitation focused evaluation models of Provus (1971), Stufflebeam (1971, and Alkin (1975) were indicative of an increasing desire by evaluators that the results of their evaluative efforts be beneficial to and utilized by decision makers.

Stake's (1973) Responsive Evaluation Model was an even more pronounced attempt to increase the utility of evaluation results. The responsive evaluation was centered upon the purposes and information needs identified by the various audiences or stakeholders of the program. The evaluator assumed the role of interventionist by stimulating the thoughts of his clients and audiences.

The stakeholder or responsive evaluation approach was utilized in the evaluation of two large programs in 1977: the Push/Excel movement and the Cities-in-Schools program. The results in both evaluations were unexpected and disappointing.

When the Push/Excel movement began receiving federal funding in 1975 it was also required to undergo a federally sponsored evaluation. According to Farrar and House (1983) this evaluation contributed to the demise of Push/Excel because "despite all evidence that it was a movement, it was evaluated as a program" (p. 33).

From the beginning, a discrepancy existed between the program the evaluators set out to assess and what they found. According to Guba (1975) one of the first steps in the evaluation process should be the validation of the program's existence.

The focus of this evaluation—of compliance, was identified by Guba (1975) as being convert in nature. A focus whose importance may overshadow the more public purposes but which are likely to remain hidden under intense scrutiny.
The stakeholder concept was problematic when applied in the evaluation. Farrar and House (1983) reported that although the agencies commissioning the evaluation envisioned stakeholders as active participants in the evaluation, little attention was given to making the stakeholder evaluation useful to them. Ideas which diverged from those of the evaluators were rejected.

A second evaluation utilizing the responsive evaluation model was a three year study of the Cities-in-Schools (CIS) program. In 1980, Stake conducted a meta evaluation of the CIS evaluation and found the great amount of time stakeholders required resulted in the stakeholder idea being underutilized. Problems with data collection and data flow also plagued the evaluation.

Stake (1983) suggested several reasons why little use was made of the evaluation findings: trying to be useful to too diverse a group, inappropriate research design and a weak data base.

**Decision-Oriented Educational Research (DOER)**

One of the major problems with Responsive Evaluation was its inability to serve multiple clients or stakeholders well. Decision-Oriented Educational Research (DOER) developed by William Cooley and William Bickel (1985) is similar in many ways to the responsive evaluation model. Both approaches are client-oriented, stressing the importance of a continued dialogue between the client/s and evaluator throughout the evaluation. Great emphasis is placed upon improving the use of evaluation research in both approaches. The major difference between the two approaches is on how many clients should be served in the evaluation. Cooley and Bickel (1985) contend that "attempts to
serve multiple clients risked the danger of not serving any client well" (p. 27).

The first step in utilizing DOER involves identifying the primary client. The primary client is usually a single individual as opposed to several stakeholders. This is not to say that DOER ignores stakeholders, for they might be involved, as respondents in surveys for example. Early conversations focus on understanding the primary client's information needs because, as Cooley and Bickel (1985) noted:

the goals of the research were usually maintained in a dialogue throughout the data collection stages. The dialogue focused on identifying the information that needed to be collected, how this could be arranged, and where relevant data sources were located. The client/researcher dialogue had a central role in DOER, guided the research activities as the steps comprised a continuous loop of activity. At its best, this dialogue was mutually educational in that it offered both the client and researcher a vehicle for sharing and shaping the views of the other. The client/researcher dialogue was also important when planning the dissemination of information during the final stages. (p. 39)

Cooley and Bickel (1985) identified potential problems with taking a client-oriented approach as well as procedures to combat such pitfalls. The first category of possible problems were those of an ethical nature involving being coopted and the biases which the researcher brings to the evaluation.

Cooley and Bickel (1985) suggested several procedures to combat unfavorable influence by the client:

(a) follow the methodological tenets of one's discipline;
(b) make available for public scrutiny the procedures used to gather data, the evidence used to support results and the results themselves; and (c) do not conduct summative style evaluation research when the program developer or implementor was the primary client. (pp. 35-37)
The second category of difficulties encountered when utilizing a client-oriented approach involved the actual operation of DOER. The first area identified by Cooley and Bickel (1985) concerned the initial establishment and maintenance of an adequate client/researcher dialogue. The second difficulty involved living up to the responsiveness promise once a dialogue was established. Cooley and Bickel (1985) suggested that the evaluator could supplement the needed interaction between the client and the evaluator through observations and study of the organizational/policy context of the primary client. The very nature of the client approach also helped diminish the access problem: the client was more likely to devote his time and attention to a discussion focused on the needs he had identified. Excessive information requests were another problem discussed by the authors. Established information priorities were a necessity in such cases.

Cooley and Bickel (1985) argued that:

research that takes place in educational systems is inevitably responding to the information needs of specific clients whether these clients were explicitly identified or not. Taking an aggressive client orientation in this context can turn an organizational "given" into procedures that yield more timely and useful data for the decision-making and policy processes. (p. 39)

A second important feature of DOER is its emphasis on a methodologically eclectic approach. Cooley and Bickel (1985) believe a methodologically eclectic approach is important for DOER for three reasons: no single research method is superior in all research contexts; DOER benefits from using different data sources to examine the same phenomenon; and primary clients vary in the kinds of information they find persuasive.
The methodologically eclectic approach, advocated by Cooley and Bickel (1985), is similar to the idea of triangulation of data which Guba and Lincoln (1981) defined as a inquiry technique where multiple data sources are used for verifying information on the same event from different participants, producing more confidence in data generated from different methodologies, and enabling multiple value perspectives to emerge from the same context or event.

Cooley and Bickel (1985) recognized constraints to taking a methodologically eclectic approach: the field of educational evaluation includes a range of disciplinary traditions, often resulting in researchers being predisposed towards one type of methodology; resource limitations within the educational system—lack of trained personnel available and the time frame for research. To combat these difficulties, Cooley and Bickel (1985) advocate the development of multidisciplinary programs using a variety of methodological tools for people entering the field of educational evaluation/research, training evaluators and policy and decision makers in the research process, the development of computerized databases which allow the application of a variety of methodological perspectives and contracting for additional expertise.

DOER. A third important aspect of DOER is something which Cooley and Bickel (1985) refer to as monitoring and tailoring. Cooley and Bickel (1985) advocate moving towards research that emphasizes an on-going process of data collection and analysis that enables policy shapers and system managers to monitor critical systems indicators and to use the information to tailor actions in response to system needs.

Monitoring and tailoring is a continuous process for system
improvement. This process begins with the development and monitoring of a variety of performance indicators. The indicators can be observable variables, such as student attendance, or less easily measured variables such as socioeconomic status. Cooley and Bickel (1985) describe indicators in terms of major constructs: the efficacy of the system as it prepares students for adulthood; the quality of the present experience; the equality of the system. When an indicator falls into an unacceptable range, the tailoring practice begins.

Tailoring, which involves focused corrective action, requires an action system that can respond to the indicators. Because indicators can only tell a researcher where to look for possible problems, the tailoring process must be diagnostic as well as action-oriented. One goal in monitoring and tailoring is to enable decision-makers to determine when they need help and to establish systems to continue the evaluation process.

The importance of computer-based information systems was discussed as it relates to the adoption of a methodologically eclectic approach in DOER but it is also another feature that affects the likelihood of whether DOER will be successful. Computer-based information systems may impact directly upon the timeliness factor in DOER. Timely responses to vital policy questions are more likely if computer-based information systems are available which contain the data needed to answer the questions. Cooley and Bickel (1985) noted several functions for computerized information systems: record keeping, report generation, record retrieval, data analysis, and monitoring and tailoring. Computerized information systems enable the examination of a broad range of data in an integrated fashion, facilitate the
examination of trends across sections of data and allow for the examination of data over time. In order to be effective, the computerized information system should contain data that are current and accurate.

Cooley and Bickel (1985) viewed program documentation as another way of meeting the specific types of information needs of system managers. Program documentation for DOER has two primary goals: developing a detailed description of the design and implementation processes of an educational innovation as they happened and providing information about the program to planners and participants as the innovation was being implemented. Cooley and Bickel (1985) regarded program documentation as a strategy for helping an education system become more reflective about its own reform processes while improving innovative processes as they occurred.

Cooley and Bickel (1985) discussed six research functions of program documentation: program improvement, technical resource, reference source, sounding board, increasing program cohesiveness, and improving the district's knowledge base.

Methodology best suited for documentation are of the type termed naturalistic inquiry (Lincoln & Guba, 1985) specifically, field research, case study, formative evaluation, and participant observation. Problems related to program documentation, identified by Cooley and Bickel (1985), are those usually associated with field research or naturalistic inquiry: balancing participant-observer roles; differentiating what would have occurred without a documenter present and what occurred as a result of his presence; ethics; politicalization
of the research program; relationship between documentation and summative evaluation; and documenter bias.

A central goal of DOER is to produce information that is useful to decision makers in the policy and management processes of educational systems. Cooley and Bickel (1985), recognizing that use occurred at a variety of levels in the educational system, varying in degree and types as a result of different contexts and other factors, adopted a broader definition of use, derived from much of the current literature on use of evaluation and research information. Important to their understanding of use was the distinction between instrumental use, where evaluation findings are received and observable policy decisions follow and conceptual use which influences decision-maker's thinking but may or may not result in an observable decision being made. Leviton and Hughes (1981) discussed a third category of use which they termed persuasive, its purpose was to draw upon evaluation evidence in attempts to convince others to support or defend a cause.

Leviton and Hughes (1981) identified five variables related to the utilization of evaluation results: relevance (which involves addressing clients' needs and timeliness of information); communication; information processing; credibility; and user involvement and advocacy.

Kennedy (1984) observed that instrumental use assumes that once the evaluation findings are available a decision is usually forthcoming. The focus of instrumental use is upon decision-making. The conceptual model of use consists of thinking about the evaluation
findings. The focus of conceptual use is upon human information processing.

Just as Cooley and Bickel (1985) broadly define the concept of use, they also view the process of dissemination less traditionally. Dissemination is an integral part of the research, which does not begin with the production of a final report, but takes place throughout the evaluation. Cooley and Bickel (1985) believe DOER's dynamic approach to dissemination is an important factor influencing use.

While none of the evaluation models developed pre or post ESEA has been abandoned and most are theoretically sound, many models do not easily lend themselves to application (Alkin & Fitz-Gibbon, 1975; Rose & Nyre, 1977). A concern over the utility of evaluation results is displayed in the models of Provus (1971), Stufflebeam (1971) and Alkin (1975) which focused upon evaluation strategies to facilitate decision making. Stake's (1973) responsive evaluation model addressed the needs of stakeholders (those individuals with a vested interest in the program) more directly. Cooley and Bickel's (1985) client-oriented DOER paradigm attempts to increase the utility of the evaluation results by serving one rather than multiple clients. DOER has been used extensively and successfully in secondary school settings. The utility of DOER in other settings needs to be determined. This study implemented and evaluated DOER is a non-traditional university academic program. The next section of this review of literature examines the emergence of non-traditional study and describes and critiques several evaluations which have been conducted on non-traditional university academic programs.
D. The Emergence and Evaluation of Non-Traditional Academic Programs

Many definitions of non-traditional study appeared in the literature. Bern (1971) referred to a number of different non-traditional learning experiences in his discussion of universities without campuses. Among these were correspondence courses, teaching by television, and independent study bureaus.

The external degree, a degree awarded by means of examination, epitomized non-traditional study for Doran (1971).

Gould and Cross (1972) defined non-traditional study as:

learning experiences that do not take place under the auspices and supervision of some formally recognized higher educational institution; or it may refer to learning that does take place under such auspices and supervision but differs significantly from the other formal educational efforts taking place there. (p. 14)

Houle (1973) saw external degree programs as representative of non-traditional study:

An external degree is one awarded to an individual on the basis of some program of preparation (devised either by himself or by an educational institution) which is not centered on traditional patterns of residential collegiate or university study. (pp. 14-15)

While adult degrees in the 1960s conformed to certain traditions: sponsored by a regular degree-granting institution; involved customary functions of admission, instruction and evaluation; utilized conventional methods of learning, according to Houle (1973), the discussion of the external degree in the late 1970s did not accept any of these traditional elements as givens.

The Commission on Non-Traditional Study (1973) stressed that non-traditional study was represented by a variety of learning
experiences and recommended that many kinds of program options and
diverse and flexible arrangements for study should have been made
available to each student.

Beaudoin (1985) equated distance learning--a method of study
by which a student learns independently while physically distant from
the teacher and sponsoring institution--with non-traditional study.

Although non-traditional study received the greatest attention
of the American academic community in the 1970s, it has existed for
over 100 years.

Bern (1971) credited the Soviet Union as being the first
country to consider non-traditional study as a legitimate alternative
to traditional classes. Through the use of special correspondence
institutions accredited as higher education institutions, diplomas
received from the correspondence study programs were considered
equivalent to those from regular day full-time programs. Over half the
enrollments in Soviet higher education institutions are in correspon-
dence or evening courses.

A landmark in the history of non-traditional study was the
creation of The Open University of Britain in 1971. Originally named
The University of the Air, The Open University was an idea first
suggested by labor leader Harold Wilson in his pre-1964 election
campaign. The Open University, which had its own charter, governing
bodies, staff and budget, was a unique attempt to combine the use of
electronic media, correspondence courses, personal tutorial supervision,
residential weekends, summer sessions and study centers (Read, 1971,
P. 230).
Beaudoin (1985) traced the beginning of non-traditional study in the United States to the use of correspondence courses in the 1870s. The University of Chicago established a home study division in 1892. Nineteen-fifteen saw the creation of the University Extension Association, which included a division of correspondence study, followed in 1926 by the development of the National Home Study Council. During the next 50 years, over 55 million Americans took correspondence courses. Today, approximately 3 million people study by mail.

Driscoll (1971) observed that the concept of universal access to higher education was first brought to the attention of the American public by the report of the President's Commission on Higher Education (1947) which held that 49% of the American population had the mental ability to complete 14 years of schooling in an appropriate curriculum. An important factor in the decision to continue one's education, he noted, was the availability of suitable opportunities.

The desire to find new ways to assist adults in recognizing their learning potential intensified with the returning troops after World War II. As Houle (1973) recalled:

Despite continuing criticism, the effort to rethink the entire degree pattern to make it conform with adult requirements did not make substantial headway until the post--World War II period. Partly in response to the demands of returning veterans, universities began to realize that to meet the urgent needs of their adult clientele they would have to design wholly new patterns of degree requirements based upon traditional aims but using new means. (p. 10)

During the early 1950s, Columbia University announced an advanced placement plan for adult students. As a result of their performance on examinations, adults were given admission into a degree program. Brooklyn College's system, by which faculty evaluators
waived students requirements based on an estimation of their experien-
tial learning, received a great deal of attention around this same
time.

Innovative non-traditional programs and services proliferated
and gained acceptance in the 1960s and 70s. Houle (1973) noted that,
while the external degree existed in foreign countries, essentially to
deal with the scarcity of educational opportunity, it was egalitari-
anism—a desire to broaden the base of opportunity for segments of the
population which had been unserved in the past—which motivated the
movement in the United States.

On-campus experiences were viewed as a confining grind or
deadly routine by creative people who, according to Harnett (1972),
had been handicapped by traditional education. Military personnel and
young mothers were two additional groups Hartnett believed had not
benefited from traditional education.

In 1971, The Ford Foundation and The Carnegie Corporation
funded a non-traditional program developed by the New York State
Education Department. The model granted regents degrees based on the
students' performance on examinations.

About the same time, New York State's Empire College was
created. This college was sponsored by the state university system
with the aid of a one million dollar grant. The programs were full-
time, nonresidential with high interdisciplinary content. The
curriculum was largely of the students' own design. Independent study,
special tutoring sessions, papers and guided experience comprised the
learning experience.
An institutional variation on the external degree program was the College Level Examination Program (CLEP) developed by the College Examination Board. CLEP was a battery of general examinations for a variety of disciplines which students would take in order to waive as much as two years of introductory college work. The College Examination Board also established the Commission on Nontraditional Study in 1971 to prevent mail-order diplomas or second rate degrees.

A study conducted in 1972 by the Educational Testing Service for the Commission on Non-traditional Study confirmed the belief of Doran and others that the requirements of traditional education hindered or prevented adult students in the pursuit of their education.

While a study conducted at the same time by the Center for Research and Development in Higher Education for the Commission revealed that a third of all American colleges and universities were engaged in unconventional programs, very few of the programs were evaluated in any formal way.

Although non-traditional programs are a firmly established presence in our educational system today, Beaudoin (1985) observed that innovative educational programs still conjure up images of the diploma mills advertised on matchbook covers. In order to combat this problem, Beaudoin (1985) recommended that non-traditional programs "bond" with traditional academic enterprises.

Evaluations of Non-Traditional University Academic Programs

The literature on the evaluation of non-traditional higher education programs is limited. A large portion of the literature is unavailable or difficult to obtain because it is in the form of
unpublished studies and conference papers. The purposes for the evaluations of the non-traditional programs were as varied as the programs.

In examining the initiation and implementation of a non-traditional program, Mark Gelber (1974) noted that The University Without Walls (UWW) programs had attempted to find ways to evaluate what learning had taken place. The student's demonstration of skill or ability or accumulated knowledge was the source of the evaluation. At the conclusion of each learning experience, the student was expected to submit to the UWW office two statements; one was a qualitative and quantitative self-evaluation and the other an evaluation of the instructor's contribution to the learning experience. At the same time, the instructor submitted a statement about the student's progress, methodology, and level of competence.

H. Victor Baldi (1976) found that despite the tremendous diversity in terms of how external degree programs were packaged and presented to the public, it is possible to categorize the programs along a conventional/unconventional continuum with respect to four key dimensions: (a) clientele to be served; (b) mode of program delivery; (c) academic governance, and (d) curriculum. According to Baldi (1976), any examination of the issues related to the quality of external degree programs is complicated by the diversity of programs included under this label.

Baldi (1976) contended that although there is a tendency to think that it was necessary to ask fundamentally different questions in the process of evaluating the quality of external degree programs, it has become increasingly clear that the same questions posed in the
evaluation of conventional programs are appropriate. In contention with Baldi, James P. Honan (1981) observed:

Off-campus degree programs introduce variables and dimensions to the education process that must be accommodated by the quality control mechanisms selected. Many concepts of academic quality developed for on-campus programs cannot be applied effectively to off-campus situations.

Standards and traditional quality control mechanisms, such as credit hour specifications, qualifications of faculty, degree of faculty control and review or availability of library facilities and other learning resources have limited applicability or must be re-defined when applied to external degree programs. (p. 2)

Honan (1981) recommended an evaluation approach that incorporated both process and outcomes. Rather than relying solely on external controls for assuring program quality, Honan (1981) believed a key element in improving the quality of non-traditional programs was through the development of internal quality controls.

Kenneth Stetson (1979) examined The University Without Walls (UWW) non-traditional programs at seven colleges to assess their strengths, weaknesses, and effectiveness. Stetson identified common programmatic features (i.e., differences between public and private UWW institutions, academic degree delivery systems, staffing pattern for selected UWW programs, length of time required to complete a baccalaureate degree, comparative academic quality) and examined student and faculty/staff views of the programs.

The essential component of Stetson's evaluation was a questionnaire which he developed. The questionnaire was divided into four sections in order to separate discrete data. The demographic sections asked the respondent to provide basic information regarding both personal and programmatic background. Each respondent was then asked
to provide basic, factual, programmatic information in the second section. The third section required the respondent to give opinions regarding personal experience in UWW. Lastly, each respondent was asked to give opinions about statements from an "ideal" standpoint, assuming they could design their own "UWW-type" degree program. This survey instrument allowed for the collection of broad-based data needed for the study (Stetson, 1979). The analysis of data from the total of 513 student questionnaires and 190 faculty/staff questionnaires received enabled Stetson to extensively compare and contrast the seven colleges' non-traditional programs.

An extensive evaluation was conducted for a baccalaureate external degree program in health services administration by Anabelle Kleppick and others (1979). The formative evaluation was based upon the achievement of objects with instruments identified for data collection. Student characteristics were established and the performance of the non-traditional students was compared with traditional students. Kleppick's study found the non-traditional students in the program were not significantly different on a number of variables from the traditional student groups.

Alan Woodley (1981) utilized a multi-variate approach for explaining student success and failure in the Open University distance teaching system of the United Kingdom. The multi-variate model was based on the results of an evaluation study into the suitability of this system for young people between the ages of 18 through 21. The multi-variate model was used to develop tools to identify "high" and "low" risk students at the admissions stage. According to Woodley (1981), the strengths of such a model were in the contribution they
made to an understanding of the reasons for the success or failure of Open University students.

Completion rates for students at the Open Learning Institute in British Columbia, Canada were examined in relation to the personal contact these students received from their tutors. Closest examination was given to the frequency of contacts with tutors and supportive behaviors tutors extended.

A Quality Assurance Program (QAP) utilizing an open systems approach was developed at the College of St. Francis (1981) to continually monitor, evaluate, and, when necessary, modify its traditional and non-traditional academic higher education programs. The major purposes of the quality assurance program were: (a) to contribute to decisions about program installation; (b) to contribute to decisions about program continuation or expansion, and (c) to contribute to decisions about program(s) modification.

Although the quality assurance program had beginning and end periods for each phase, according to the authors (Steinkrauss & Kranz, 1981), the model consisted of a continuous process for serving the major decisions, both external and internal, which had priority at any given time. It was assumed that as the continuity of quality assessment and assurance increased, the quality in educational programs would increase as well.

Non-traditional academic programs and services began appearing in significant numbers in American universities and colleges during the time period referred to by Madaus, Scriven and Stufflebeam (1983) as The Age of Expansion. It was not long after their appearance that the value and quality of non-traditional programs were questioned. The
evaluations were as varied as the programs they were evaluating: the most useful of the evaluations were formative in design. Despite the fact that many have been in existence for over 20 years, non-traditional programs are often viewed with skepticism.

E. Summary

This review of literature examined the development of and major trends in program evaluation from its earliest recorded beginning to the present day. The enactment of the Elementary and Secondary Act (ESEA) in 1965 resulted in a redirection for the field of program evaluation--from its dependence on a few evaluation strategies and tools to burgeoning models and conceptualizations. While most of these models and conceptualizations were theoretically sound, many were difficult to implement and the evaluation's results went unutilized.

Researchers such as Provis (1971), Stufflebeam (1971), and Alkin (1975) developed models designed to facilitate decision-making--thus increasing their utility. Stake (1973) developed a model he termed responsive because the evaluator responded directly to the information needs and concerns of the program's multiple stakeholders. Cooley and Bickel's (1985) Decision-Oriented Educational Research (DOER) presents a single-client orientation.
III. Research Design: General Method

A. Nature of the Research

The Decision-Oriented Educational Research (DOER) paradigm developed by William Cooley and William Bickel (1985) was investigated in this study. The specific research questions to be answered were:

1. Are there problems inherent in implementing the DOER paradigm for evaluating a non-traditional university academic program?
2. How effective is the DOER paradigm in assisting decision-makers for this program in policy formulation? (This study was limited to an examination of the following features of DOER: the primary client-researcher dialogue, the methodologically eclectic approach, the use of computerized information systems, and the utilization and dissemination of evaluation results.)

A case study approach was employed and is appropriate for this research because of the purpose of the study and the nature of the research questions. Guba and Lincoln (1981) identified four classes of purposes for using case studies:

1. to chronicle...to develop a register of facts or events in the order...in which they happened;
2. to render...to depict or characterize;
3. to teach...to provide with knowledge or instruct;
4. to test...to prove or try. (p. 371)

Yin (1985) believes

the most important condition for differentiating among research strategies is to identify the type of research
questions being asked. . . "what" question may either be exploratory (in which case any of the strategies could be used) or about prevalence (in which surveys or the analysis of archival records would be favored). "How" and "why" questions are likely to favor the use of case studies, experiments, or histories. (p. 19)

The purposes for using a case study approach, as outlined by Guba and Lincoln (1981), are included to lesser and greater extents in this study. Events, in the order in which they occurred, are documented. Depictions of both researcher and primary client are presented. Knowledge about the implementation and utility of DOER is provided and the DOER paradigm is tested in a university non-traditional academic program setting. In this research, questions of how and what, as identified by Yin (1985), are asked: What problems, if any, are inherent in implementing DOER in a non-traditional university academic program setting and how effective is DOER in aiding decision-makers in policy formulation?

It is hoped that the results of this study will benefit future evaluations utilizing the DOER paradigm. To that end, this study must communicate to the reader in a manner that best facilitates an understanding. Stake (1978) found case studies to be "the preferred method of research because they may be epistemologically in harmony with the reader's experience and thus to that person a natural basis for generalization" (p. 5).

Guba and Lincoln (1981) identified and discussed several advantages of the case study approach. Case studies:

1. enable persons in other settings interested in the possible worth of the entity being evaluated in their contexts to make a rapid determination about fittingness;
2. provide an experiential perspective;
3. are holistic and lifelike;
4. simplify the range of data that one is asked to consider;
5. focus the reader's attention and illuminate meanings;
6. are a reporting vehicle appropriate to the understanding and language of audiences. (pp. 375-376)

In addition to the advantages of using the case study approach described by Guba and Lincoln, Cooley and Bickel (1985) favored the use of case studies in presenting their research experiences using DOER in the Pittsburgh public schools. As Cooley and Bickel (1985) explained:

By providing a rich description of the events and the context of a particular research activity, we hope to accomplish two objectives. First, we intend to give a sense of the evidence that has been used to formulate our conclusions about DOER. Second, it should also provide readers with enough of an understanding of the case so they can draw their own conclusions, ones that might well be at odds with those of the authors. (p. 20)

The remainder of this chapter consists of a description of the research participants, methods of gathering data, research setting, specific procedures used in researching the study's objectives and analysis of data.

B. The Participants

The chief participant in this study was the primary client. The primary client for this study was the Dean of the college subsuming the non-traditional university academic program being evaluated by DOER. The Dean was selected as the primary client for the study because he is the major decision maker for the non-traditional university academic program used in this study.

Based on the primary client's information needs, several
research populations and samples were used in this study.

1. A sample of 260 students was taken from the total population of 1800 students from the non-traditional university academic program. A systematic sample was taken by selecting every seventh student from an alphabetical listing of the total population of 1800 students. The size of the sample was determined through a discussion between the primary client and researcher. A systematic sample of students was chosen in order that a representative sample existed in defining selected characteristics of the non-traditional university academic program's student population.

2. A sample of 350 students was taken from the total non-traditional university academic program's population of 1800 students. A random sample was taken by selecting students at random from an alphabetical listing of the total population of 1800 students. The size of the sample was determined through a discussion between the primary client and researcher. A random sample of students was chosen in order that a representative sample existed for expressing the students' thoughts and opinions on the non-traditional university academic program.

3. The total population of 107 faculty members teaching through the non-traditional university academic program was chosen in order that faculty's thoughts and opinions on the non-traditional university academic program were accurately represented. The decision to use the entire faculty population was made jointly through a discussion between the primary client and researcher.

4. The total population of 21 chairpeople of programs with more than one faculty member who had developed and/or taught through
the non-traditional university academic program was chosen in order that chairpeople's thoughts and opinions on the non-traditional university academic program be accurately represented. The decision to use the entire faculty population was made jointly through a discussion between the primary client and researcher.

5. A sample of five former administrators of the non-traditional university academic program, identified by the primary client, were chosen to provide information about and background on the non-traditional university academic program.

6. The Dean of a large college, within the urban university involved in this study, was chosen to provide information about the college's policies regarding the non-traditional university academic program.

A guarantee of confidentiality and anonymity was extended to all participants in the study. Participation in the study was voluntary.

C. Methods of Gathering Data

Evidence for the relevance of such a study was gathered from the literature on program evaluation and evaluation of university non-traditional university academic programs. Additional data were obtained through dialogue, discussions, questionnaires, and interviews with the research participants and program documents.

D. Research Setting

This study was conducted within the context of a non-traditional university academic program. The non-traditional university academic program under study was transferred from the Provost's Office to the large college from which 95% of the program's
courses were developed. No evaluation of the non-traditional university academic program nor of any of its components had been conducted in several years. Decision-making regarding program policy was imminent. The Dean of the college is the chief decision maker for the college and, consequently, for the non-traditional university academic program.

E. Research Procedures

The following research procedures were used to determine how effective the DOER paradigm was in assisting decision makers in policy formulation.

1. An on-going written log was kept by the researcher for the following purposes:
   a. to document the dialogue between the primary client and the researcher;
   b. to record the researcher's perceptions and observations on the stages, procedures, and progress of DOER in evaluating the non-traditional university academic program;
   c. to document events in the order in which they occurred;
   d. to provide depictions of the primary client and researcher.

2. Specific changes in or development of program policy were recorded.

3. During the final stages of the implementation of DOER, the researcher informally interviewed the primary client regarding the utilization and dissemination of the evaluation results.

4. Upon completion of the implementation of DOER, the
researcher conducted a formal, structured interview, based on questions she had prepared, regarding the utilization and dissemination of the evaluation results.

5. Data collected and analyzed in each research activity were consulted.

F. Analysis of the Data

Analysis of the data was used to determine the ease and effectiveness of implementing DOER in the evaluation of a non-traditional university academic program and the effectiveness and utility of DOER in aiding the decision maker in his policy formulation.

The researcher's log entries were summarized and analyzed to document the nature and content of the on-going dialogue between the primary client and researcher, to identify and assess recurring themes in the perceptions and observations of the researcher regarding the implementation and utility of the DOER paradigm, to provide depictions of the primary client and the researcher, and to document events in the order in which they occurred.

Specific changes in or the development of program policies were recorded and analyzed to determine what impact, if any, DOER had upon policy formulation. The primary client's interview responses were summarized and analyzed to assess his opinions and perceptions on the utility and effectiveness of DOER in aiding his policy decisions.

Data collected and analyzed in each research activity were used to assess the ease and effectiveness of implementing DOER for the evaluation of a non-traditional university academic program. The findings generated from the data provided the basis for
illustrations and conclusions regarding DOER's use in evaluating similar non-traditional university academic programs.
IV. Using the DOER Paradigm: The Events

A. Introduction

This chapter is divided into two major sections. Section B describes the implementation of Decision-Oriented Educational Research (DOER). Within this first section is a brief background on the context in which the research originated, a discussion on the methodologically eclectic approach to formative evaluation and the documentation of the dialogue between the primary client and researcher and the events in the order in which they occurred. Dates of the events are included to provide the reader with a sense of the critical importance of timeliness in using DOER. Section C presents a discussion on the effectiveness of DOER in aiding decision makers. An interview with the primary client is included in this section.

B. The Implementation of Decision-Oriented Educational Research (DOER)

The Research Context

The DOER paradigm was implemented to determine the ease and effectiveness of using such a model for evaluating non-traditional university academic programs. The non-traditional university academic program under study was transferred from the Provost's Office to the large college from which 95% of the program's courses were developed.

Methodologically Eclectic Approach to Formative Evaluation

An important feature of DOER and of this evaluation is its methodologically eclectic approach. Unlike other evaluation models
Cooley and Bickel (1985) defined eclecticism for the educational researcher as, "being willing and able to draw upon a wide range of methodologies while trying to produce information useful to policy shapers and managers" (p. 41).

When deciding what research method(s) should be used in an evaluation, Cooley and Bickel (1985) stressed that the nature of the primary client's questions is the most important factor for consideration. This formative evaluation concentrated on the operational procedures of the non-traditional university academic program rather than attempting to explore all of the means employed to arrive at the goals and objectives of the program.

The initial step in implementing the DOER paradigm is the identification of the primary client. The first phase of this occurred when the researcher contacted the Dean of the college which had subsumed the non-traditional university academic program and told him about the plans for the study and asked him if he would participate. On November 18, the researcher, and the administrators for the college, subsuming the non-traditional university academic program being evaluated by DOER, met to identify issues and concerns and to begin the process of generating questions for the focus of the evaluation. The plan for evaluation was formative. The administrators made clear in this meeting that the purpose of the evaluation was not to determine whether to continue or discontinue the non-traditional university academic program, rather, the purpose of the evaluation was for program improvement through an examination of the program's goals.
and operations. The administrators were in the process of planning their own evaluation and had begun to collect information on the non-traditional university academic program.

Originally, the college's administrators, which consisted of the Dean and two Associate Deans of the college and a curriculum specialist from the non-traditional program, were selected as the primary client for this study. At a later meeting, on December 16, the Dean suggested that he alone should serve as the primary client for the study. The researcher agreed with the Dean's suggestion, believing that by serving one client she would avoid the danger of not serving the multiple clients well. The issues, concerns and first iteration of questions generated from the November 18 meeting with the college administrators, were sent to the primary client on December 19 for his review during the Christmas break.

On January 6, a second meeting with the primary client took place three weeks after the first iteration of questions, generated in the earlier meeting by the administrators, was sent to the primary client for his review.

Both the primary client and the researcher (as an employee of the non-traditional university academic program under evaluation) had information and perceptions about the program when beginning the evaluation. The data collected would either confirm or refute the ideas they carried in with them. In order to avoid possible researcher biases and to identify all possible effects of the program, intended as well as unintended, the primary client did not share all of the policy questions and issues he was considering with the researcher. The withholding of the policy questions and issues placed greater
responsibility upon the primary client in that the researcher's perspective was absent. The researcher was dependent, to a greater extent, upon the primary client for decisions about the type and amount of data needed to address the policy issues and questions and to serve the evaluation's potential audiences.

The primary client and researcher discussed possible questions which might be derived from the broad program areas and the kinds of data the researcher would collect. The data collection focused on the more descriptive questions raised about the non-traditional university academic program, particularly who are being served by the program and the general nature of these services.

Among the program areas, which the second iteration of questions (see Appendix A), focused upon were:

1. The mission: if, how and why the goals and purposes of the program had changed over time.
2. The program operations:
   a. The students: does the program serve those it was intended to serve? Does the program serve others?
   b. The courses: comparison between grades for on-campus and non-traditional program offerings. Rationale for selection of course and majors.
   c. The workshops: how does their current function compare with the originally intended purpose? What are faculty and student opinions and perceptions regarding the workshops?
d. The faculty: policies and procedures for the selection of faculty. Status of faculty advisory board.
e. Evaluation: for courses and faculty.
f. Testing: controls and security in testing system. How many students use library testing sites?

True to the recommendations of DOER's developers, Cooley and Bickel (1985), the methodology chosen was eclectic. The most important consideration for the methodologies selected was the primary client's questions. The audiences to receive the data and feasibility of the methods--related to availability and the researcher's abilities--were also considerations for the selection of methodologies.

The types of data to be collected were varied. Some questions were answered by qualitative data, some by quantitative data and others by a combination of each. For example, the primary client and researcher agreed that data to be collected to answer questions within the category of program mission were of a qualitative type: program documents and personal interviews. Data to be gathered regarding students relied heavily upon quantitative methods: questionnaires, student files and grade records. Answers to questions on curriculum, faculty, testing and general program operations would be derived from an analysis of both quantitative and qualitative data. The data would be used to generate information that would be useful for program improvement and describing how the non-traditional university academic program worked. Most of the analyses would be simply descriptive, not inferential.
An eclectic approach was used in this study because the questions benefited from the use of different data sources to answer the questions, the primary client desired a variety of data and no single research method was appropriate or adequate for answering all the primary client's questions.

The primary client suggested resources--contact people and information--to aid in the data collection. It was agreed at that meeting that the researcher would generate additional questions from the general program areas for evaluation finalized at the meeting. These early discussions took place in the context of a continuing refinement of the questions for evaluation to be addressed.

The Primary Client-Researcher Dialogue and Events

The primary client-researcher dialogue began with the November 18 meeting with the college administrators. At the second meeting with the Dean of the college, it was agreed that he would serve as primary client. During their third meeting, the primary client and researcher formalized the evaluation questions.

1. On February 3, the researcher delivered specific evaluation questions developed from the general areas for evaluation and suggested research techniques to the primary client for his review before their next meeting.

Later that day, the primary client contacted the researcher by telephone with a specific request for historical data on the intent of the program's workshops, to be collected from the program documents. The primary client and researcher did not discuss how these data would be used or disseminated. The researcher knew from her work as an administrator for the non-traditional university academic program,
that attendance at workshops, whether voluntary or required, was a "hot" issue. There were rumors that workshop attendance would now become mandatory because some of the administrators of the college favored such a plan. Some faculty and students were already voicing their opposition to the idea.

Addressing the primary client's question about the workshops required that the researcher examine all available program documents (the original Task Force Report which established the non-traditional university academic program, annual reports, status reports, memos, letters, and other assorted program publications) to find any information regarding or references to the workshops, and summarize and discuss any changes reported in the documents regarding the intent of the workshops. The information produced, and delivered to the primary client by letter on February 4, focused upon changes in the use of and attendance requirements for the program's workshops. A finding of this report was that the original purpose of the workshops had changed considerably during the program's 14 years of operation. Originally, the workshops were considered a mandatory part of the course, currently the workshops are optional in all but a handful of the program's courses. The methodology used emphasized the summary and analysis of available materials. (A summary of the reports generated to the primary client is provided in Appendix B. Appendix C provides an example of one kind of report generated.)

2. On February 10, the primary client and researcher met to review, finalize and prioritize the specific evaluation questions that would be answered through the evaluation. The plan called for the collection of a variety of data describing the program's mission and
operations and characteristics, opinions and perceptions of program participants (see Appendix A).

The primary client and researcher discussed a timeline for the completion of the research tasks, all of which had about equal priority. The lack of computerized information systems was considered when prioritizing the research tasks. For example, the course comparison and grade analysis had to be started as quickly as possible because of the great amount of time required in collecting basic course and grade data. It was decided at this meeting that questionnaires should be developed first for surveying the program's students, faculty and chairpeople because of the great amount of time needed from the first stage of developing the questionnaires until the final step of analyzing the questionnaire data. The questionnaires were to be used to answer specific questions from five of the broad program areas for evaluation: students, faculty, curriculum, testing and miscellaneous.

While the researcher waited for the questionnaires to be returned, work on the course comparison and grade distribution analysis could be done. Interviews with former program administrators would be conducted as their schedules permitted. Student file data would be collected when the assistance of a work study student was available. Program documents, were available within the program, and would be examined when time permitted.

The primary client and researcher discussed the best way to obtain data on course comparison and grade distribution analysis. The collection of the course grade information was very difficult because the university did not have computerized records of their grade data. The primary client explained that the collection of grade data was a
two step process. First, the researcher would have to obtain the instructor's names and alpha codes for all 116 courses from information at a university office. The second step would be to use that information to identify courses on grade rosters from another university office. The researcher would have to transcribe by hand the grades from the grade rosters as they were not able to be released from the university office.

The grade collection and analysis seemed an insurmountable task for several reasons: data owned and stored in different university offices, lack of a computerized data base, the large number of courses with multiple sections to be examined over a three-year period, the official grade rosters could not be removed from the university office necessitating that the researcher examine them during her regular working hours, and because the grade reports were confidential, the researcher could not have assistance in collecting the data.

The primary client and researcher also discussed who might be appropriate university employees to contact for information to assist in the gathering of data for the grade distribution analysis. The researcher was impressed by the fact that the primary client, who is a very important and busy university administrator, personally called a university employee to enable her to have access to confidential grade records. The primary client also volunteered to contact a former program administrator to arrange for an interview.

The primary client and researcher agreed to meet the following week to discuss strategies for data collection. The researcher was pleased with the progress of the dialogue. The primary client was
very accessible and reviewed the materials sent in advance in detail prior to each meeting.

3. The researcher contacted several university employees, on February 11, to determine if there was a more expedient method to collect data on course comparison and grade distribution analysis. The researcher was told by a university employee in the registrar's office that the Associate Dean of the college involved in this study could provide access to some of the data needed to complete this task.

On February 12, the researcher met with the Associate Dean of the college and obtained some of the data necessary for course comparison and grade distribution analysis. The data provided by the Associate Dean consisted of grade distribution analysis data for the entire university. The university grade distribution analysis data included the course department, code, number and title and a breakdown of the individual letter grades assigned for each course offering. Although these were not the final official grade rosters, and were somewhat less accurate than the data collected through the previously described method, the primary client agreed to accept this solution when the researcher explained the feasibility of using the official grade data.

The Associate Dean allowed the researcher to take the grade distribution analysis data from his office which made the data collection process more convenient because the data could be collected at any time.

The primary client requested that a comparison be made between the individual letter grades for on-campus and non-traditional program offerings of the same course over a three-year period. From this
information, the primary client could determine if there was a higher frequency of incomplete grades, grade inflation, and possible grading patterns or trends in one course as compared with another. The researcher asked the primary client how he wanted the data presented. The primary client, who knew the likely audiences for the information, requested the individual grades for each course and the percentages of each grade.

Having access to the grade distribution analysis data did not facilitate the data collection. From the total university offerings, over a three-year period, courses offered through the non-traditional university academic program and the on-campus versions of the same courses were identified. The letter grades for each individual section of the course were transcribed and totaled. This process, which took the researcher and an assistant approximately 250 hours, could have been completed in a day or two if the university had, had a computer-based grading system. Had a computerized data base existed, more complex analyses would have been feasible. The need for computerized grade and course information is clearly illustrated here. A tremendous amount of energy was devoted to collecting basic grade and course data that could and should be part of any university's computer data files.

4. On February 13, the researcher delivered questions she had developed for the student, faculty and chairperson questionnaires to the primary client for his review before the next meeting.

5. The primary client and researcher met on February 19 to discuss questionnaire development and to review the questions the researcher had developed for inclusion on each questionnaire. The
researcher discussed the type of data she would be collecting for each of the remaining evaluation questions. The primary client agreed with the researcher's plans for data collection. The questionnaires were revised, based on the discussion between the primary client and researcher.

6. The researcher delivered the questionnaires to the primary client on February 24 for his review before their next meeting.

7. On February 27, the primary client and researcher met to discuss the questionnaires and the data presentation.

8. On March 3, the primary client and researcher discussed a proposed timeline for completion of the evaluation and the manner in which the various data would be presented. The primary client recommended the researcher contact an employee from The Office of Measurement and Evaluation to assist in the analysis and presentation of the questionnaire data. The researcher gave the primary client a second revision of the student and faculty questionnaires and cover letters for review before their next meeting.

The researcher interviewed the Dean of another college within the urban university used in the study. The purpose of the interview was to answer some of the primary client's evaluation questions regarding that college's policies related to the non-traditional university academic program. The primary client and researcher developed specific questions for the interview. The Dean had been opposed to the creation of the non-traditional university academic program when he was a member on the original task force. The researcher asked him if he had the same opinion about the program and why there were restrictions placed upon students in his college regarding the
number of courses they could take through the non-traditional university academic program. The Dean's responses and opinions about the non-traditional university program were different than the researcher had anticipated. The Dean was much more positive about the non-traditional university academic program than the researcher expected he would be and the Dean said he was willing to reconsider the policies related to the program.

9. On March 5, the primary client and researcher discussed the revised student and faculty questionnaires and cover letters. The primary client found the student questionnaire satisfactory, and he and the researcher agreed upon a sample population of ten or more students to be used for the pilot test of the questionnaire. The student questionnaire contained a total of 35 questions. Thirteen of the questions concerned the student's educational background and academic plans. Seven questions addressed the workshops. Four questions addressed the students' perceptions about program communications and four asked about program courses. There were four demographic questions and three open-ended questions about general program operations. The types of survey questions used were varied: fill-in-the blank, largely related to educational background, academic plans and demographic information (i.e., name of the college or school in which you are currently enrolled); multiple choice questions where the student was asked to check all appropriate responses (i.e., Why are you taking a course/courses through the program?); ratings (on a five or three-point scale) which tried to establish the students' perceptions and opinions on a number of program operations (i.e., How helpful have you found the following program communications?); and
open-ended questions used to let students express their feelings freely. While the open-ended questions and "free" options for individual questions were difficult to code, useful information was obtained from these questions.

The primary client and researcher discussed further revisions for the faculty questionnaires. These discussed changes and modifications largely involved word changes for clarity. The primary client and researcher agreed that, in addition to the revision of the faculty questionnaire, the researcher would revise the administrators' interview questions and questions to be answered by the program documents for the next meeting. The primary client sought greater detail in the administrators' and program document questions. For example, where the researcher had asked, "What was the faculty advisory committee?" The primary client added, "Who was on the faculty advisory committee?" and "What did the committee do?" The researcher provided the primary client with a revised form of the chairperson questionnaire for review before the next meeting and a letter which was a summary of the March 3 interview with the Dean.

10. On March 8, the student questionnaire was pilot tested using 35 of the program's students who were attending workshop classes. Participation in the pilot study was voluntary. Students were timed while completing the questionnaire and any problems in completing the questionnaire or with particular questions were noted.

11. The student questionnaire, a cover letter, consent form and a business reply envelope were mailed to a sample of 350 of the program's 1800 students on March 7. The sample of 350 students was selected at random from an alphabetical listing of the program's total
student population. (Those students who had participated in the pilot study were excluded.) The cover letter explained the importance and purpose of the questionnaire and allowed the students two weeks for completion.

12. On March 11, the primary client and researcher finalized the questions for the program administrators' interviews and the questions to be answered from the program documents. The primary client agreed that the faculty and chairperson questionnaires were ready for mailing. It was decided at that time that the chairperson questionnaire required no pilot test because it was being sent to a small group. The primary client and researcher decided that the faculty questionnaire be pilot tested with four faculty members: two faculty members who had developed courses which only used the program's instructional materials and two faculty members who had developed courses which used the program's instructional materials and a textbook. The primary client and researcher agreed that it was important for the researcher to be present when the pilot tests were conducted in the event that faculty members had problems understanding or completing the questionnaire.

13. The researcher pilot tested the faculty questionnaires during the week of March 10, using faculty members who met the criteria the primary client had specified. During each of the pilot tests, the researcher remained with the faculty member while they answered the questionnaire. The researcher noted any questions or problems that the faculty members had when completing the questionnaire and how long it took them to complete the questionnaire.
The first faculty member selected for the pilot test expressed concerns as he went through the questionnaire. The faculty member had developed and teaches several courses through the non-traditional university academic program. He felt the wording on the questions was biased and leading. He stated that the researcher might be something of a pawn in a plot to downscale or even eliminate the entire non-traditional university academic program. An example of a question he found offensive was "Why aren't the workshops valuable?" The faculty member stated that this question took for granted, or made the assumption that the workshops were not valuable.

The researcher pilot tested the questionnaire next on two relatively new faculty members, each had developed and teaches one course through the non-traditional university academic program. They found no problems of any kind with the questionnaire.

The final faculty member to test the questionnaire had developed and teaches several courses through the non-traditional university academic program. While he did not express a concern over the questionnaire's objectivity, he was worried that the subsumption of the non-traditional university academic program by the larger college might result in the program's changing for the worse. The faculty questionnaires were revised based on the results of the pilot test and upon the comments of a former program administrator with whom the researcher consulted. For example, the question, "Why aren't the workshops valuable?" was revised to "Are the workshops valuable for students?"

The concerns expressed by the more experienced faculty members concerned the researcher and illustrate Cooley and Bickel's (1985)
observation that educational systems are vast, complex and interrelated. Since January, when the non-traditional university academic program became a part of the larger college, several faculty members had contacted the researcher (in her role as an employee of the non-traditional university academic program) and expressed similar concerns about the program becoming lost in bureaucracy, downscaled or eliminated. The researcher told the faculty members that the Dean of the college was very interested in their opinion and on basing any policy decisions upon data, as evidenced by his participation in an extensive evaluation of the program that would include faculty questionnaires. This information was reassuring to most faculty members, although, some said they would have preferred an informal meeting with faculty members and the college's management team to a formal surveying instrument.

14. On March 13, the researcher met with a university employee, identified by the primary client, from the Office of Measurement and Evaluation, to aid in the analyses of the questionnaire data. The university employee explained the coding system used by her office for computerizing the questionnaire responses. Each question on the questionnaires was assigned a number on a computer answer sheet. The university employee wrote the coding schemes (program) for each questionnaire. Once the questionnaire computerized response sheets were scanned, a printout of frequencies and percentages would be provided. More complex analyses (i.e., standard deviations, cross tabulations) could have been done, with relative ease, if the primary client had desired this kind of information.
The scanning of the questionnaire computer sheets was done on the same day that they were received. This university computer service enabled the questionnaire results to be submitted to the primary client in a timely manner. In less than a week from their submission, the researcher received the questionnaire frequencies and percentages. Although the coding of the questionnaire responses onto computerized sheets took 28 hours, without the aid of a computer, figuring frequencies and percentages would have involved considerably more time. It should also be noted here that the researcher did not contact the university employee from The Office of Measurement and Evaluation when designing and constructing the questionnaires and, as a result, the question formats were not always designed in a way which facilitated data entry and analyses, consequently, the coding of the questionnaires might have taken less time if the researcher had consulted with the university employee earlier.

On this same day, the researcher sent a letter and a copy of the interview questions to each of the five former program administrators identified by the primary client. The letter explained the purpose of the interview and notified the administrators that the researcher would be contacting them the following week to schedule an interview.

15. On March 14, the faculty and chairperson questionnaires were mailed. Included with the faculty questionnaire was an individualized cover letter, consent form and business reply envelope. The questionnaires were mailed to the entire population of 107 faculty (excluding those who had participated in the pilot study) who had developed and/or taught a course through the non-traditional university
academic program. The cover letter explained the importance and purpose of the questionnaire and allowed a two week time period for its completion.

Included with the chairperson questionnaire was a list of faculty who had developed and/or taught a course through the program, an individualized cover letter, consent form and business reply envelope. The questionnaires were mailed to the entire population of chairpeople who had more than one faculty member from their department who had developed and/or taught a course through the non-traditional university academic program. The chairperson population consisted of 21 individuals. The cover letter explained the importance and purpose of the questionnaire and allowed a two week time period for its completion.

The faculty questionnaire contained a total of 29 questions. Ten of the questions addressed that faculty member's course developments and revisions. Five of the six questions on the workshops in the faculty questionnaire were also asked on the student questionnaire. Five of the questions addressed course and faculty evaluations. Three questions addressed course requirements and testing, one question was devoted to students, another to program communications and one closed and open question about program staff. The last question was open-ended and addressed general program operations. The two open-ended questions, and the question about program communications on the faculty questionnaire were included on the student questionnaire.

The chairperson questionnaire contained a total of 13 questions. The questions addressed faculty teaching through the non-traditional university academic program, course development and evaluation. Both
the faculty and chairperson questionnaires contained a variety of question types as described in the discussion of the student questionnaires.

16. During the week of March 17, the researcher contacted all five former program administrators. The immediate past chief program administrator declined to be interviewed by the researcher or primary client. Three of the four interviews were conducted that week. The remaining administrator was interviewed the following week. The program administrators were asked questions about the non-traditional university academic program's history, mission, student population, faculty and policies. In each case, the program administrator agreed to allow the interview to be taped. A brief background on each program administrator was provided, including information about when the program administrator worked for the program and in what position. During the interview, the program administrators were asked questions regarding the mission of the non-traditional university academic program's mission, populations, policies for the recruitment of faculty, the faculty advisory committee and workshops.

The specific question of workshops is a good illustration of how different methodologies were used to address one issue. Workshops were first examined through the available program materials, were next addressed in both the student and faculty questionnaires and later discussed in the interviews with program administrators.

The program administrators' interviews provided the kind of documentary history that Cooley and Bickel (1985) discussed. From the administrators, detailed descriptions of the design and implementation processes of the non-traditional university academic program were
provided. Their recollections provided a description of the events in chronological order, constraints encountered, their responses and decisions regarding issues which surfaced. From their multiple perspectives, a greater understanding of the program's evolution was possible.

Once the interviews were completed, the researcher transcribed the tapes. The administrators' responses were presented together in a written report to the primary client on April 9. The answers were given verbatim except for the deletion of extraneous expressions such as "you know" that were not relevant and detracted from the flow of conversation.

17. The researcher contacted a university employee, identified by the primary client, to begin collection of the student file data. The university employee made arrangements for the researcher to have her own office to use during the data collection and explained the filing system used by the college. Other university employees were notified of the researcher's work by the university employee.

On March 18, the researcher and a work-study student, from the non-traditional university academic program, began the collection of data on 260 of the program's non-traditional students through an examination of their academic files. The sample of 260 students was chosen systematically. Every seventh student was selected from an alphabetical list of the non-traditional university academic program's total student population of 1800 students. Information from the files included the student's age, zip code, status at time of application (i.e., high school or transfer), number of transfer credits, high
school QPA, SAT scores, and course taking history over a three-year period. The collection of the data took the researcher and work-study student 40 hours. Again, the timeliness and analyses of this research task suffered because there was no computerized data base available to access for this information. The researcher and the work-study student had to physically search for and remove the students' files, from a room filed with thousands of files, and sift through the mass of documents in order to answer the questions. The data gathered from the files was then transcribed by hand onto charts from which it was summarized and analyzed. Had a data base been available, the research task could have been completed in a day or two and more complex analyses might have been possible. Student questionnaire data might have been integrated with the student information system data if such a system had been available. This basic student data could and should be part of the university's computer data files because, like the course and grade data, there is a recurring need for this information. Cooley and Bickel (1985) noted similar problems regarding a lack of computerized information systems in their work in the Pittsburgh Public Schools.

On April 30, the researcher presented a summary of the data to the primary client in the form of graphs and tables. Student age and registration data were compiled and presented in bar graphs, student enrollment and course-taking history data in tables, QPA's, SAT scores, and transfer credit totals, in separate line graphs. Zip code information was presented in the explanatory cover letter which accompanied the graphs and tables.
18. The primary client and researcher met on March 19. After consulting with an expert in evaluation on strategies to improve the response rate, the researcher suggested that a 10% sample of non-respondents on the student questionnaire be used for a second mailing. These students would be pursued more aggressively with the goal of getting as many questionnaires returned from the non-respondent group as possible. The primary client agreed with the researcher's suggestions. The primary client and researcher agreed upon a 15% (260) student sample to provide a representation of student characteristics from student academic files.

The researcher received a telephone call, on this same day, from a program chairman regarding the chairperson questionnaire. The chairman stated that he knew nothing about the non-traditional university academic program as he had only been chairman six months. He stated that he did not want to get "caught in the middle of anything." Faculty had set up individual arrangements with the non-traditional university academic program, he explained, and he did not want to intervene. The chairman stated that the questionnaire had to be taken in the context of the larger political situation. The Provost was currently examining teaching loads and the chairman was anxious that his answers might be used in another context for other purposes.

A few other chairpersons expressed similar concerns about other possible uses their answers on this questionnaire might have. Some faculty also expressed their fears about the motives for this questionnaire, as it was sent at the same time the program was being subsumed by the larger college unit. In this case, the university had
recently undergone a five year evaluation plan of all its operations. The concerns on the part of chairpersons and faculty illustrate the interdependence of the various components within an educational system and the importance of recognizing these relationships when using DOER, that Cooley and Bickel (1985) discussed. The non-traditional university academic program's move to the larger college was one result of this five year evaluation plan.

19. By March 23, the researcher had received 110 student questionnaires from the first mailing necessitating a second mailing of 24 (10%) questionnaires from the non-responding student population of 240 students. A random sample of 24 students was done for the second mailing. In addition to another questionnaire, the 24 students were sent an individualized letter emphasizing the importance of their responses to the questionnaire and a business reply envelope. The students were given ten days to respond to the questionnaire.

20. The researcher drafted and delivered a letter to the primary client on March 24 which would be sent by him to non-responding faculty. The primary client made minor changes to the letter and had his secretary type and reproduce individualized letters to the non-responding faculty. The researcher appreciated the primary client's assistance through secretarial help in drafting the letters.

21. By March 28, 60 faculty questionnaires were returned from the 103 which were sent. The researcher received 14 responses from the 21 chairpeople who were sent questionnaires.

22. On March 31, a second mailing of questionnaires was made to the faculty. In addition to the primary client's letter, each of the 43 non-responding faculty members received an additional copy of
the questionnaire and a business reply envelope. Although no return
date was specified in the primary client's letter, the faculty were
given three weeks time to respond.

23. On April 1, the researcher was able to contact five of
the chairpeople, from the seven who had not responded to the question-
naire, by telephone. The researcher encouraged the chairpeople to
complete the questionnaire and answered any questions they had about it.

24. By April 7, the researcher had received 14 additional
student questionnaires from the original mailing and 4 responses from
the second student mailing during the ten days allotted for a total of
129 responses from a possible 350 students. The 4 responses from the
second student mailing revealed no new information about the non-
responding group. The non-responding group was not contacted further
because of time constraints and limited resources. The researcher
coded the questionnaires and delivered the computer sheets to the
university employee from the Office of Measurement and Evaluation for
scanning.

25. Beginning the week of April 8, the researcher began
examining all available program documents to answer questions related
to the non-traditional university academic program's mission, student
population, policies regarding course acquisition and faculty. Prior
to this examination, it was necessary for the researcher to locate the
program documents. An employee of the non-traditional university
academic program assisted the researcher in locating the documents,
some of which she had retained while employed as the director's
secretary. The researcher contacted former program administrators in
an effort to locate missing documents, without success. The documents.
examined included the original Task Force Report, annual reports, internal memos, dissertations and status reports. The report summarized, compared and analyzed information from the various documents in order to answer the questions. The data were presented chronologically and included many excerpts from the program documents. In addition to answering the questions, the report provided a historical perspective of the program's development, confirmed and supplemented information gathered from the administrators' interviews, while pulling together information from a variety of sources. The researcher wrote and delivered a report based on the data collected from the program documents to the primary client on April 18.

26. On April 9, the researcher received the printout from the computer program run on the student questionnaires. The researcher typed the questions onto the printout, cut and pasted and enlarged and reproduced the questions to facilitate interpreting the results. The printout, which contained frequencies and percentages for the individual questions, and a letter explaining the different headings for each question were given to the primary client on April 21.

27. On April 22, the researcher received an additional 30 faculty responses from the second mailing of the faculty questionnaire, which amounted to 90 responses from a possible total of 103. Three additional chairperson questionnaires were received which amounted to 17 responses from a possible total of 21. The researcher coded the questionnaires and delivered the computer sheets to the university employee from The Office of Measurement and Evaluation for scanning.
28. The researcher and her assistant completed the course comparison and grade distribution analysis. On April 29, the primary client was given the data in the form he had requested—a handwritten compilation of individual grade totals and percentages for the non-traditional program and on-campus course offerings. A separate chart was included which listed the non-traditional course offering, the course requirement, the requirement to qualify for an incomplete grade, and the total and percentage of incomplete grades for each course over a three-year period.

The university employee, from the Office of Measurement and Evaluation, contacted the researcher because there was a problem with the coding of the questionnaires which necessitated the researcher recoding sections of the questionnaire and the university employee rewriting sections of the computer program.

29. On May 6th, after preparing the faculty and chairperson questionnaire data in the same manner as the student questionnaire data, the researcher delivered the data to the primary client.

30. On May 12, the researcher met with the primary client and presented him with a data summary. The data summary was a written document of six pages which aimed at pulling together information from the different data sources to answer the broad exploratory questions and present unexpected or unintended findings. The researcher's findings regarding the program's mission were that, due to severe budget cuts during fiscal year 1979-1980, the original mission of the program had shifted from emphasis on course development and experimentation to course offerings and fiscal accountability. This shift had positive effects (more students recruited, more courses offered
and more tuition generated) as well as negative ones (course developments were reduced, program development and soft-money funding were halted and all program evaluation was eliminated). The information regarding mission was taken from the administrators' interviews and program documents.

Findings regarding the program's students included confirmation of some of the statistics quoted in the program documents, regarding age and reasons for attending college and taking non-traditional program offerings. Discrepancies were noted between program document data on students regarding enrollment and information from the student file data. The program documents stated that 50% of the students surveyed could not take college courses if not for the non-traditional program offerings. The findings from this evaluation revealed 9 to 26% had difficulty or were unable to take on-campus college courses. The program documents also stated that 71% of the students were taking non-traditional program courses exclusively. The evaluation's findings showed that 13% of the students fell into this category.

Sixty-one percent of the chairpersons desired additional courses be developed through the non-traditional university academic program. This was a somewhat surprising finding because it was thought that chairpersons were generally resistant to new course developments through the program. While 50% of the chairpersons surveyed were opposed to an entire major being offered externally, the major reason (82%) for opposition was that some courses could not or should not be externalized, not negative feelings or resistance to the program. A surprising 86% of the chairpersons surveyed indicated that their department conducted no departmental review of the
non-traditional university academic program's course materials. Seventy-nine percent of the chairpersons were in favor of the non-traditional program establishing its own procedures and processes for evaluating the courses.

Despite the pilot test of the faculty questionnaire, one question, regarding alternate forms for the course requirements, baffled 14 faculty members. The question asked how many alternate forms should be written for the following course requirements: tests, homework, quizzes, papers and projects. The primary client and researcher wanted to know how many versions of a course requirement the faculty members found reasonable. The word versions might have been better understood than alternate forms.

Chairpersons and faculty disagreed on what faculty evaluations should be based upon. Faculty (78%) favored evaluations by students, chairpeople (80%) by the department.

The primary client felt some of the data needed further analysis. The primary client requested that three of the graphs from the student file data be redone. The questionnaire data were to be broken into tables and the grade distribution analysis and course comparison had to be retranscribed from two lists into one with suggestions from the researcher on what the data meant.

31. On May 29, the researcher delivered an analysis of the student questionnaire and student file data to the primary client for his review before their meeting on June 3. This analysis (see Appendix C) was more detailed than the description provided in the May 12 data summary. The analysis contained narrative explanations of the quantitative data presented in tables and graphs which were
included in the report. The analysis presented findings such as 65% of the students surveyed resided in the county where the university is located. This information contradicted other data which indicated that the majority of the students lived a great distance from the university which necessitated their taking courses externally. The most contradictory findings were related to course taking patterns and completion rates. The course comparison and grade distribution analysis revealed that some courses had student incompletion rates as high as 84.6%. The student questionnaire findings revealed an almost 100% completion rate. The researcher suggested the reason for this discrepancy might be that the students responding to questionnaires were a biased sample--higher achievers. Similarly 43% of the students responding to the questionnaire indicated that they attended all of the workshops--higher than the 30% figure reported elsewhere.

32. On June 2, the researcher delivered the revised grade distribution analysis and recommendations for further study to the primary client for his review before their meeting on June 3. One of the recommendations for further study and monitoring was the high incidence of incomplete grades in the non-traditional program versions of the courses.

33. On June 3, the researcher met with the primary client to conduct a formal, semi-structured interview regarding his perceptions and opinions on the effectiveness of the DOER paradigm in aiding decision making and his role as primary client.
C. The Effectiveness of DOER in Aiding Policy Formulation

Two methods were used to determine the effectiveness of DOER in aiding the decision maker or primary client in policy formulation. Specific changes in or the development of program policies were to have been recorded and analyzed to determine what impact, if any, DOER had on the policy formulation. While DOER was being implemented, the researcher observed no changes in or development of program policy. Major decisions regarding changes in and the development of program policy are scheduled over the next several months.

The second method used to decide if DOER was useful and effective in aiding the decision maker in policy formulation was through both an informal and a formal semi-structured interviews.

In a meeting between the primary client and researcher on May 12, the researcher informally interviewed the primary client on the issue of data dissemination and utility. The primary client stated that his office would use the data to provide a summary report to the new Director and appropriate staff of the non-traditional university academic program as well as selected administrators from the college subsuming the program. The primary client's office would also provide a report to faculty and advisory groups based on some of the data collected by the researcher. A short report would be written to The Board of Visitors. Some of the data would provide the basis for reports to the Provost's Advisory Council on Undergraduate Programs. The primary client also indicated that other individuals, yet to be identified, would be receiving part of the data collected by the researcher in combination with other data to assist in policy
making. The primary client would determine the focus, nature and audience for the reports.

The primary client stated that some of the information collected by the researcher indicated that changes must be made in the non-traditional university academic program. The primary client stated that, although the data did not provide alternatives, it did aid in policy making. For example, some of the data collected by the researcher revealed a need for modifications to the recruitment processes for the college, of which the non-traditional university academic program is a part, and for college-wide testing procedures.

The primary client stated at this time that no dissemination of the data had taken place with the exception of the data on the workshops. These data were disseminated to his administrative staff and used as a discussion topic with candidates for the Director's position at the non-traditional university academic program.

The primary client stated that the data collected were an essential element for integration into the college. He found the process very effective for providing the administration with relevant data and information for programs under review. The primary client felt the DOER paradigm was appropriate for his style of administration. In retrospect, he added, the Faculty Council should have been consulted when establishing the questions for the evaluation, however, their involvement would not have changed the model. The primary client had consulted with 10-12 faculty teaching in the non-traditional university academic program, only one of whom was on the Council.

On May 30, the primary client was supplied with the questions the researcher would be asking during their taped, formal,
semi-structured interview. The interview had two purposes: to
determine how the primary client perceived his role in the evaluation
and what he believed were the DOER paradigm's possibilities for use in
evaluation. The interview was conducted on June 3 and lasted approxi-
mately one and a half hours.

Q1. Have you received the data requested?
Yes, I received the data requested. Was it presented in the
most useable fashion all the time? Not quite, but I did get the data.

Q2. Were the data presented in a timely manner?
It's met my need for time.

Q3. I provided data on the content of the workshops
independent of the data from the review of documents. Were they
useful and, if so, have they been used in decision making?

They were useful. No decision has been made. It started a
chain of events that will culminate in decisions, but those events
have to go through our Council. You actually had to have it then in
order to pursue the policy development.

Q4. Was this the only case where information has been
disseminated so far?

No, I've shared some data on the G grades. We had our own
independent G grade study and we used some of yours as confirmation
data. Beyond that, I'm not sure what I've shared.

Q5. How do you plan to use the data submitted? Who will you
disseminate the evaluation findings to?

Well, first of all some of the data will go to, will be used
by, the new Director. Some of the data will be used with the Director
and our administrative group. Some will be shared with Faculty Council
when we formulate policies and procedures. Then some will be shared with our Board of Visitors. From the beginning, there was never a question of do we keep the non-traditional university academic program or do we do away with it. That was never a question. The real questions we're looking at are: What is the program? Who is it servicing? How is it servicing? What is the quality of the service? What is its role and function within the total college? What are some of the issues that need to be addressed? Some of the questions by this data, some by other data that we have. Now, for instance, one thing . . . it's quite obvious the new Director's going to have to realize that the curriculum must be built for those persons who cannot normally come to campus. So the curriculum director will have to work from that assumption but the servicing people who service the students should work from the assumption that most of the students are regular campus students. It seems very clear that a lot of the services that were being provided were not really necessary for most of the students. Related to that, it became quite clear that the level and background of the staff are not appropriate to deliver the kind of program that is needed. So, working with the Director, some of those things will have to change. It was also obvious that the faculty, who are the key ingredient in this, play the least significant role, in fact, they have played an insignificant role and the program staff has played the extremely significant role. This should change.

How do you know that? Was it from the data that were collected?

From the data that faculty gave, from the students, the quality of the students, the grades. Now in terms of courses, both this data
and the data we have indicate that the concentration must be on the revision of courses. The array of courses is quite good. There may be some holes, but there aren't too many. There is a question of whether or not we need full majors. Not having some majors may delay some people but this seems to be such a small group that the cost of developing a full major as well as the political ramifications as shared by the chairpeople doesn't seem to be worth it.

So, even though 47% of the students surveyed indicated they'd be interested in a full major, it's doubtful that they'd do the whole thing through the program?

But they don't show that in their course taking behavior. A lot of times what students say in answering the questions isn't always indicative of what they actually do or are willing to do. What it means is . . . they may not be able to move through their programs as quickly as they would like to, but then, this is a small number. The data also said that the marketing has been awful, atrocious. The students actually show that there's such a small number who come to the university through the non-traditional university academic program. They actually find out about it after they get here. You would have expected a larger number, especially from a biased sample who returned the questionnaires. This has also been our observation as we watched the admissions over the last several years. And then the data indicated there is a question as to what is it that you are marketing. We should not be marketing a program of home study. Next, there are some policies on grading that will be formulated and we've been thinking about them. Finally, there is the whole area of testing. The information we have on testing verifies what we were concerned about.
We gained very little information on the assessment of courses. We did learn that most people are not fearful of assessing them.

Q6. Were there any data here that you no longer needed?
No, I found it all useful.

Q7. Are there any additional data needs you now wish you had made in your original request?
No. There's other data that I need but I would not turn it over to somebody else to collect. A lot of it's salary data. There are other kinds of data, quality of the staff and related personnel matters, that we will be looking into.

Q8. Did you find the client-centered approach an aid to your decision-making?
Oh yes. To me, data is essential in decision-making and I found this approach to work very well.

Q9. Do you believe that you had a mutually-educational dialogue with the researcher?
No, because the researcher did not have enough experience in evaluation, which is not a negative thing, it's just as a student you had limited experience in this area.

Q10. What problems did you find in using DOER?
The basic problem is the one we just mentioned. To use the DOER paradigm, the evaluator really, truly has to be quite well-versed in evaluation and has to understand the field in which they are doing the evaluation. The two things have to go along.

By field, you mean context?
In this case it's the university. They have to understand university operations.
So that was the only problem you found with DOER?

Yes. I think that with this type of evaluation the client is the one who has the need, whether it's a single individual or a group. Had the Council been working to apply these questions they would have been entirely different. Their questions may come at a later time. There are still some serious questions that we will use our own Council and some experienced evaluators on Council to look at and examine.

Q11. Do you have some suggestions you'd make to other clients using DOER?

Limit that to the university, what suggestions I would make to other university clients. In schools, colleges where the problems are similar to this, I believe that the process is very good. Here the Dean actually utilized other people to help generate the questions but one person (the Dean) became responsible for interactions between the evaluator. I think it keeps the evaluator out of the middle of trying to please three or four masters simultaneously. Also, if people feel they need data right away, through conversations with the Dean, who is the one person to coordinate this with the evaluator, he's able to help them understand why that priority could wait or how we could get another kind of information. This procedure means you don't have to interfere with the on-going evaluation process.

Q12. Are there any changes you'd make to the model?

I really wouldn't use employees, persons employed as we did here, who are employed in the same unit, who in this case was working on a dissertation. This became muddied, especially as to whether or
not the time you're putting into this evaluation is distracting from the other duties.

But, let's say I hadn't been working on a dissertation, you wouldn't use an employee normally?

Then what I would have done is identify an employee and pulled that person off of his or her regular job and made this evaluation that person's responsibility. That would have been all right.

You don't have any objection to having an employee doing an evaluation?

No, as long as the employee has this as part of their load. Let's say you had taken the time off and worked on this evaluation as part of your dissertation and not at the same time employed, this would have been a better model.

Do you think being an employee biases the evaluation?

No.

Why, because the client is dictating the areas to be looked at?

Yes.

Q13. Do you think this model would be useful for a summative evaluation?

That would depend upon the program being evaluated. In this case we have a program within a school and the program has no faculty. Next, this program addresses only a small population of students. Thus, any political ramifications of the evaluation outcomes are minimal. DOER could very easily be employed as a model for the summative evaluation of this program. Now, whether or not DOER would work as a model for summative evaluation of a Geography department in a university is another question. In the case of an established
department, an evaluator would have to work with plural clients: on the one hand administrators and on the other faculty. In this case, even though both would agree upon what data are needed, there is little chance that if the administrators behind the data suggested termination of the program that the faculty would agree. These situations are extremely political so a client driven model may not serve as well.

You don't think there's a danger that the questions asked by the primary client could be leading—to look for certain results to justify the demise of a program?

Sure, but by the same token, knowing that I have to report these data to multiple audiences tends to hold down such biases.

This is a safeguard?

Yes.

Q14. You don't think it's necessary for the evaluator to know the policy questions?

No.

You don't know all the policy questions, you're doing an inductive type of thing?

I had policy questions when we started and the data I asked for assisted that. There are other policy questions that fell out during the process which may be of a slightly different nature. So, no, I don't think the evaluator has to know all of the policies. Some questions are so obvious, the evaluator will know what policies are under consideration but there are others not as clear, but not knowing the policy to me is not essential. Many times in formative evaluation we are mainly concerned with refinement of policy. We knew we had to do something about the grading, specific aspects within
the grading procedures. We knew we had to do something about the testing and we did get specific insights from the data. We know we had to have policies on revisions of courses vs. new courses. We only have a finite set of funds and you can't always do both. So, many times the policies are quite obvious. They're buried in the questions and the data give insights as to how to modify or improve the policies.

D. Summary

The implementation of DOER took place over an eight month period and involved several phases. The primary client was identified, with early conversations between the primary client and researcher centering upon defining and prioritizing the primary client's information needs. Once the information needs were identified and finalized, the primary client and researcher discussed research questions, strategies and the presentation of data. A methodologically eclectic approach was used in the evaluation. The data were then presented to the primary client with the final discussions between the primary client and researcher focusing upon data dissemination and utilization plans.

Although the primary client disseminated very little data throughout the course of the evaluation, through his interviews with the researcher, he identified several audiences that he planned to share the information with. The primary client found the DOER paradigm a useful means for obtaining relevant data for decision making and recognized the paradigm's usefulness in dealing with multiple stakeholders. Although the primary client indicated that he had received all the data he requested in a timely manner and that all the data were useful to him, he stated that they were not always
presented in the most useable fashion. The researcher's inexperience was the only problem the primary client found in using the DOER paradigm. The primary client stressed that, in his opinion, the researcher using DOER must not only be well-versed in evaluation, but must have a thorough understanding of the context in which he is working. A factor which may have contributed to the data not always being presented in a useable form was the absence of computerized data bases.

The primary client felt that if employees of the unit being evaluated are used as evaluators, then they should be removed from other functions and conduct the evaluative functions as part of their normal workload. According to the primary client, the use of employees as evaluators did not bias the evaluation because the primary client determined the focus of the evaluation. To insure that the researcher was not biased and that unintended as well as intended outcomes of the program were revealed, the primary client purposely withheld some of his policy questions from the researcher. The primary client felt that reporting the evaluation findings to multiple audiences safeguarded against possible abuses of the DOER paradigm by the primary client.

The DOER paradigm could be used for summative evaluation, the primary client felt, depending upon the situation. The data obtained through DOER were designed to help with policy decisions. The primary client did not believe the data provided answers and didn't think they should.
V. Conclusions

A. Introduction

This study was designed to investigate the implementation of the DOER paradigm for evaluating a non-traditional university program and DOER's effectiveness in assisting decision makers in policy formulation. Conclusions for both of the research questions of this study are discussed separately in this final chapter.

B. The Implementation of DOER

This section of Chapter V presents conclusions regarding the implementation of the DOER paradigm in evaluating a non-traditional university academic program and includes a discussion of DOER's effectiveness for primary client-researcher dialogue.

The Primary-Client-Researcher Dialogue

In defining the client orientation for DOER, Cooley and Bickel (1985) stated that the "client orientation has two essential characteristics: a primary client is identified for a piece of research and is involved in the design, analysis, and dissemination of work and the involvement of the client comes through ongoing dialogue with the researcher" (p. 25).

The first step in implementing the DOER paradigm is the identification of the primary client. The primary client was identified, first as four individuals comprising the administrative unit of the college subsuming the non-traditional university academic program. Later, it was agreed upon between the Dean of the college...
and the researcher that he should serve as the primary client. The primary client recognized the value of a single client orientation, noting in his interview that, "it keeps the evaluator out of the middle of trying to please three or four masters simultaneously."

Cooley and Bickel (1985) identified some of the difficulties in implementing or operationalizing DOER. These difficulties were classified into issues related to primary client accessibility and the clarification of information needs.

Accessibility of the primary client was never a problem in implementing DOER for this study. During the eight month period that this evaluation was conducted, the primary client and researcher met 13 times. The primary client was also accessible in the sense that he spent many hours reviewing evaluation data.

The documentation and analysis of the primary client-researcher dialogue revealed that the primary client was involved in the design, analysis, and dissemination of the research as a result of the on-going dialogue.

A second difficulty, identified by Cooley and Bickel (1985), in implementing DOER was that of clarifying information needs. According to Cooley and Bickel (1985):

early stages in the dialogue involve identifying the information needs of the client and selecting research strategies for obtaining the needed information in a timely fashion . . . the researcher should work hard at understanding the information needs of a primary client, and the policy and organizational context of these needs. (pp. 25-27)

One of the features of this evaluation, that differed from the ideal notion of a client-orientation as discussed by Cooley and Bickel (1985), was that the primary client chose to withhold
some of the policy questions and issues from the researcher. The researcher as an inside evaluator and administrator for the non-traditional university academic program was immersed in the organizational context of this study. By not sharing all the policy questions and issues, the primary client hoped to eliminate possible researcher biases and to illuminate all program effects—unintended as well as intended. As a result, the researcher was dependent to a greater extent on the primary client for determining what data and types of analyses would best answer his information needs.

Another issue regarding the use of employees for the evaluation is related to the focus and selection of research activities. In-house researchers, generally, are in less of a position to say "no" to requested research tasks than are outside evaluators. The primary client recognized difficulties with using employees as evaluators, stating in his interview that he would only use an employee as an evaluator if the research tasks were part of their regular work load. In this study, the researcher conducted the evaluation, while performing her normal work duties and doctoral research.

**The Methodologically Eclectic Approach**

The researcher gained an understanding of the information needs of the primary client through their discussions and their joint creation of questions to get at the broad areas of concern the primary client had identified. The primary client and researcher discussed the research strategies for obtaining the desired data and worked together on the development of survey instruments. Together, the primary client and researcher prioritized the research tasks to make the methodologically eclectic approach used in this formative
evaluation manageable, while providing the primary client with data in a timely fashion.

One difficulty encountered in using an eclectic approach was the lack of computerized information systems in the university. Considerable time and energy was spent on data collection tasks that should have been a part of the university's student information systems, such as information on enrollment, grades, and test scores. These descriptive statistics were an important data focus for many of the concerns the primary client had regarding the program. Had computerized information systems been available, data collection and analyses could have been done with greater ease. As Cooley and Bickel (1985) observed:

> databases . . . can put a DOER in a better position to apply a variety of methodological perspectives to a new research task. In the instance of the computerized databases, the researcher is in a position to apply a variety of analytic techniques to new questions, possibly without having to gear up for new data activities. (p. 55)

**The Role and Training of the Researcher for a Methodologically Eclectic Approach**

The importance of the researcher being methodologically well-versed in their approach is an important feature of DOER. In order to be methodologically eclectic, Cooley and Bickel (1985) recommended that, "While a single researcher cannot be an expert in all methods, some exposure, and perhaps more importantly, an appreciation of alternative methods is vital" (p. 151). The primary client stressed this as his observed opinion when discussing the DOER model.

Anderson and Ball (1978), in their discussion on training
evaluators, felt that the knowledge and skills that evaluators need are dependent to a greater extent on the kinds of programs they are evaluating and the purposes of their evaluation efforts and that a distinction needed to be made between the skills an evaluator needed and those he might obtain from outside experts.

In order to use a methodologically eclectic approach, the researcher must be knowledgeable about several research methods and have an adequate knowledge of all the research methods with a staff or available consultants able to utilize the required or desired methodology.

Cooley and Bickel (1985) also recognized that outside expertise may be necessary.

In the absence of relevant internal expertise that reflects multiple methodological perspectives, the educational system is seriously constrained in its ability to take an eclectic approach to its research agenda. This problem can be confronted by contracting for additional expertise. (p. 55)

In this study, the researcher was not an expert in all research methodologies nor did she have a staff or available consultants to aid in the evaluation. The researcher spent considerable time trying to learn about various research methods while conducting the evaluation and this affected the evaluation's timeliness. For example, had the researcher known more about survey research and all its nuances, the coding of the questionnaire responses would have been completed sooner if the questions had been designed with ease of data entry in mind. The researcher also consulted with university experts in evaluation, testing, measurement, and educational research. The skills of the researcher were the only problem the primary client noted in using the DOER paradigm. The primary client considered the
researcher's skills in selecting the methodologies used in this study. For example, analyses were descriptive in nature rather than interpretive or inferential.

The training of program evaluators is a relatively new enterprise (Anderson & Ball, 1978; Cooley & Bickel, 1985; Cronbach & Associates, 1980). Until recently, evaluators were drawn from a variety of professions. These disciplinary divisions are yet another constraint in adopting an eclectic approach. Policy and decision makers involved in DOER, if acquainted at all with the research process, may also have methodological predispositions.

Anderson and Ball (1978) surveyed 64 experts in the field of educational research and evaluation on what knowledge and skills competent evaluators should possess and how the knowledge and skills should be obtained. Descriptive and inferential statistics, statistical analysis, quasi-experimental and experimental designs were the most essential content or knowledge areas according to the 44 persons responding. Professional and ethical sensitivity, expository skills (speaking and writing) and sensitivity to concerns of all interested parties, were ranked highest among the desired skill areas. The experts favored formal instruction for gaining competency in the content areas. Supervised field experience was preferred for gaining competency in the skills area.

Training programs for individuals interested in using DOER should include a combination of formal instruction in research methodologies and supervised field experiences. Among the research methodologies which should be taught through formal instruction are: experimental and quasi-experimental designs, sampling, survey methods,
descriptive and inferential statistics, content analysis, trend analysis, and case study methodology. Students in evaluation should also have a wide exposure to literature and reference sources used by evaluators and a knowledge of alternative models for program evaluation. Computer applications as they relate to the research methodologies should be included as part of this formal instruction. Supervised field experiences should provide students with the opportunity to serve in a technical role and observe the thought processes and methods of experienced evaluators. Students should also have an understanding of how people with research expertise can be used as advisors and consultants for the evaluation.

Continuing education programs for professionals in the field not well versed in evaluation should be developed as well as post-doctoral courses. Training in the interrelations between evaluation research processes and policy analysis for policy and decision makers would prepare them for their role in DOER and increase the utility of the educational research.

C. **DOER for Decision-Making and Program Improvement**

A primary goal of DOER is to provide information that is useful to decision makers for policy formulation for program improvement. In this study, two methods were used to determine the effectiveness and utility of DOER in aiding the primary client in policy formulation: changes in or the development of program policies and interviews with the primary client. This section of Chapter V discusses the use and dissemination of evaluation results
and their impact on the effectiveness of DOER in assisting decision-making.

The Utilization of Evaluation Results

Cooley and Bickel's (1985) experiences indicated that "use occurred at a variety of levels in the organization, varying in degree and types by case, as the result of a variety of contextual and other factors" (p. 120). Important to their understanding of use was the distinction between two broad categories of use:

1. instrumental use, where observable policy decisions are made as a direct result of the evaluation findings;
2. conceptual use, where there may or may not be an observable decision made, however, the decision-maker's thinking was influenced by the evaluation findings. (p. 119)

Kennedy (1984) observed that the focus of instrumental use was upon an observable decision. Conceptual use emphasized human information processing, in the sense that it is assumed that the decision maker already has a considerable body of knowledge before receiving the evidence. The decision maker interacts with the evidence, interprets its meaning, decides its relevance, and determines whether or how it will be used. (pp. 207-208)

The primary client in this study stated that he found the client-centered approach an aid to his decision-making and he found this approach to work very well, although the researcher observed no changes or development in program policy. When the primary client contacted the researcher by telephone with a specific request for information regarding the program's workshops, the researcher was able to provide it. Although no decisions regarding the workshops have been made to date, the primary client stated that the information started a chain of events that will culminate in decisions. The
information had to be available in order to start into motion the decision-making processes. This is one example of a conceptual use of evaluation results. Although an observable decision has not been made, the primary client and other decision-makers' thinking will be influenced by the evaluation data.

Kennedy (1984) discussed how, through conceptual use, "evidence can accumulate with other evidence and other sources of knowledge and ideas to influence future decisions and actions" (p. 208). The primary client in this study already had a considerable body of knowledge before receiving the evaluation results. Some of the evaluation data were used for confirmation of other data or in addition to other data--another example of conceptual use.

While Leviton and Hughes (1981) found some disagreement as to the effect timeliness had upon the utilization of the evaluation's results, timeliness was an important factor in this study. Guba (1975), in discussing the criterion of timeliness in a good evaluation, observed:

"It has been suggested that evaluation data, like fresh fish, are very dependent upon timing if they are to have utility . . . One of the crucial ways in which evaluation differs from other inquiry processes is in this time orientation; the search for a scientific law can be protracted indefinitely, but the search for an evaluation datum must be time bound." (p. 46)

Cooley and Bickel (1985) also emphasized the critical importance of timeliness in DOER noting that, "it just cannot be done with the sort of relaxed schedule that discipline-oriented research tends to enjoy" (p. 187).
The Dissemination of Evaluation Results

Cooley and Bickel (1985) stressed the importance of dissemination as an "integral part of the research process. Dissemination does not begin with the production of a final written report nor is it confined to reports" (p. 127).

While Cooley and Bickel (1985) see dissemination as the work of both the researcher and primary client, the researcher played a very small role in the dissemination process in this study. Some dissemination by the researcher did take place early in the evaluation through periodic updates by the researcher for the primary client. These updates had several purposes: reports on the progress of data collection, informal discussions regarding data results, and further exploration of the research questions. Frequently, additional research plans were made as a result of these discussions.

Once the data collection phase had neared completion, with the majority of the data collected and presented to the primary client, the researcher's part in the dissemination process ended, with the exception of the additional data analyses completed at the request of the primary client.

The researcher will not be a part of the dissemination of data that is expected to occur over the next several months. As the primary client had indicated in the informal interview, some of the data will be provided to the non-traditional university academic program's new Director and other staff members with various reports containing portions of the data written and distributed by the primary client's office.
D. Summary: The Overall Effectiveness of DOER

While this study is different, and perhaps unique in some ways from other DOER case studies, it is important in several respects. This study illustrates the emphasis on a strong client-orientation and improvement-oriented research. The primary client was accessible, knowledgeable about educational research, and actively involved in every step of the research, from the identification of information needs through the dissemination of findings. The primary client and researcher were able, through their on-going dialogue, to identify information needs, select research strategies for the collection of data and prioritize research tasks. The primary client withheld some of the policy questions and issues under consideration from the researcher in order to avoid possible researcher bias and to identify unintended as well as intended outcomes of the program. Data collection focused more upon descriptive questions raised about the program, particularly who was being served by the program and the general nature of program operations.

The use of interviews and program documents and the analyses of various quantitative data illustrate the use of a methodologically eclectic approach. Documentation data provided useful information for future innovative efforts related to the improvement orientation of DOER. The need for computerized information systems came out in this research. The lack of these systems hampered some of the data collection and analyses. A massive effort was required in order to get basic descriptive statistics to address several of the primary client's major concerns.

Based on the findings of this evaluation, some key indicators
for the establishment of a monitoring and tailoring program are evident: a certain percentage of incomplete (G) grades could be a key indicator for a tailoring program concerning the non-traditional program's courses; a high incidence of academic integrity infractions could serve as an indicator of testing security problems and a need for alternative forms of the examinations; low attendance at workshops might serve as an indicator for corrective action to be taken regarding faculty teaching and an examination of program policy and communications regarding attendance. The primary client's plans for evaluation data to be used as a basis for further research marks a beginning of a continuous monitoring program and further research.


& L. Krimerman (Eds.), Philosophy of educational research 
(pp. 6-16). New York: John Wiley & Sons, Inc.


Doran, B. (1971). The external degree program: Credit without 
classes. College and University Business, 51(4), 58-60.

independent study degree programs. School and Society, 99, 
411-413.

1905 A.D. Proceedings of the 1964 Invitational Conference on 

Eisner, E. (1983). Educational connoisseurship and criticism: 
Their form and functions in educational evaluation. In 
G. Madaus, M. Scriven, & D. Stufflebeam (Eds.), Evaluation models: 
Viewpoints on educational and human services evaluation (pp. 335-

School Review, 80(4), 573-589.

Eisner, E. (1977). On the uses of educational connoisseurship and 
criticism for evaluating classroom life. Teachers College Record, 
78(3), 345-358.

Applied strategies for curriculum evaluation (pp. 41-47). 
Virginia: ASCD.


Theory Into Practice, 1(3), 121-133.

Stufflebeam, D. et al. (1971). Educational evaluation and decision-making. In B. Worthen & J. Sanders (Eds.), Educational evaluation: 


Applied strategies for curriculum evaluation (pp. 48-57). 
Virginia: ASCD.


APPENDICES
Appendix A

Formal Evaluation Questions

1. MISSION
   a. What were the original goals, purposes mission of the program? (Program documents, interviews with individuals who were instrumental in developing the program)
   b. If/how did the goals, purposes, mission change? (Program documents, policies, procedures, interviews with staff members)
   c. Why did they change? (Program documents, interviews with staff members)

2. THE STUDENTS
   a. Who are they?
      i. age
      ii. academic background
      iii. residence (Admissions records)
   b. Is this the population originally anticipated in the program's mission? (Program documents, interviews with program founders)
   c. How many students were attracted to the university by the program? (Student questionnaire)
   d. How many students take off-campus as an alternative to conventional study and what are their reasons--time constraints, on-campus offering closed, course not offered on campus? (Student questionnaire)
e. How do students fare in the courses?
   i. comparison between on-campus course grades and off-campus course grades.
   ii. G grades and withdrawals for first time students as opposed to upper level students. Why didn't they finish? (Student questionnaire)
   iii. How does the grading in off-campus courses compare with on-campus offerings?

f. How many day-college students take NTUAP courses? Why do they take them? (Program documents, student questionnaire)

g. What limitations are placed upon on-campus day students regarding off-campus courses? Why? (Interviews with Dean of the day college)

h. How many guest students/cross registrations does the program process? (Program records)

3. THE CURRICULUM

a. Workshops. How does their current function compare with the originally intended purpose? (Program documents, faculty and student questionnaires)

b. Is there any difference between the grade performance of those who attend as opposed to those who don't attend? (Attendance and grade records)

c. Rationale for the selection of courses.
   i. How are they chosen? Professor owned vs. department owned?
   ii. How is need determined? (Program office policy)
iii. Are there schools who would like to have courses developed? For what purposes, for what population? (Chairperson questionnaire)

d. How is the PIC curriculum design model being used? How has the model changed? Is it outdated? (Curriculum specialists interviewed, interview with PIC model author)

e. Are stand-alone course offerings preferred by students? Why? (Student questionnaire)

f. Do faculty members use program course materials on campus? (Faculty questionnaire)

g. Departmental evaluation--should there be one for all new courses? What implications for the program do departmental evaluations have? Will offerings drastically drop as a result? (Chairperson interview/questionnaire)

h. How do we determine majors? How many students have completed an entire major externally? How many would if they were available? (Program documents, program acquisition policy, student questionnaire)

i. Why was the formal assessment of new courses dropped? Is formal assessment of the courses by the program necessary? (Curriculum specialist interviews, faculty questionnaire)

j. Difference between volume of G grades in courses with a G grade requirement and courses without? Which courses have more G grades? Why? (Grade rosters, faculty questionnaire)
4. THE FACULTY
   a. Policies and procedures for the selection of faculty.  
      (Program documents, chairperson questionnaires)
   b. Are all courses taught as overload?  (Chairperson questionnaire)
   c. What happened to the faculty oversight committee?  (Program documents)

5. TESTING
   a. How many students are taking exams at the library sites?  
      How many of these students also take exams on campus?  
      (Program documents, student questionnaires)
   b. Packaging of take-home exams with study guides--do departments 
      know this is being done?  (Chairperson questionnaire)
   c. Controls and security in the testing system?  (Student questionnaire)

6. MISCELLANEOUS
   a. Procedures for contracts--who decides on the amount of 
      money paid?  (Program documents, policy)
   b. Assessment of curriculum specialists and their roles as 
      professionals.  (Program documents, curriculum specialist 
      interviews)
   c. Communication between faculty member and student during 
      the course.  What takes place?  How is it determined?  
      Timeliness, usefulness of the information?  (Faculty and 
      student questionnaires)
Appendix B

Summary of Reports Generated to Primary Client

1. February 4 - Workshop Inquiry. A three-page report which summarized data, regarding the workshops, found in 13 program documents; the original Task Force Report, status reports, annual reports, and internal publications.

2. March 5 - Dean's Interview. A two-page report which summarized the researcher's meeting with the Dean of the day college. Questions focused primarily upon the college's policies regarding their students taking courses through the non-traditional program and his opinions and perceptions about the program.

3. April 9 - Administrators' Interviews. A twenty-three-page report which summarized and synthesized the administrators' responses to questions regarding program mission, goals and objectives, populations, recruitment policies for faculty, workshops, and the faculty advisory board.

4. April 18 - Program Documents. A summary and analysis of 19 program documents, including the original Task Force Reports, memorandums, internal publications, and one dissertation, were presented in a twenty-three-page report which addressed questions related to mission, populations, the faculty advisory board, and faculty selection.

5. April 21 - Student Questionnaire Data. The responses of 129 students to the student questionnaire were presented in this report which included the absolute, relative and adjusted
individual and total grades and percentages for the 116 on-campus and non-traditional program offerings were presented on separate charts. Each course was listed by department, course number, total number of individual grades, total number of grades and percentages. An incomplete (G) grade analysis for the non-traditional program courses was also provided. Included in this analysis was the course department, number, title, requirements, incomplete (G) grade requirement, incomplete grade total, and incomplete grade percentage.

7. April 30 - Student File Data. The descriptive statistics garnered from the student files (age, registration patterns, enrollment, high school QPAs, SAT scores, and transfer credits) were presented through a combination of eight tables and charts.

8. May 6 - Faculty Questionnaire Data. The responses of 90 faculty members to the faculty questionnaire were presented in this report which included the absolute, relative, and adjusted frequencies to the 27 closed questions. Free options and open-ended responses to questions were also provided.

9. May 6 - Chairperson Questionnaire Data. The responses of 21 chairpersons to chairperson questionnaire were presented in this report which included absolute, relative, and adjusted frequencies to the survey's 13 closed questions. Free options to the questions were also provided.
10. May 6 - Faculty Status. A report regarding the payment method
(i.e., overload), years of teaching through the program, and
employment in addition to the university, was provided for the
120 faculty members teaching through the non-traditional
university academic program.

11. May 12 - Data Summary. A six-page report, which presented a
summary of findings from the administrators' interviews,
program documents, questionnaires, and student file data, to
answer questions related to mission, population, workshops,
curriculum, evaluation, and testing.

12. May 29 - Student Profile - A twenty-one-page report which
synthesized and analyzed the descriptive statistics from the
student file data, questionnaire data, program document, and
interview data, to provide a depiction of the non-traditional
university academic program's current student population.
(See Appendix C.)

13. June 2 - Course Comparison and Grade Analysis II. Based on the
primary client's requests, the grade distribution information
presented on April 29 was presented together and a summary
and highlights were provided based on the data.
Appendix C

The Non-Traditional Student: An Analysis

A. Introduction

Students are a very important part of the Non-Traditional University Academic Program (NTUAP). NTUAP is a service unit that enables schools and departments in the University to externalize their courses. The students are those of a particular school who choose to take a course or series of courses externally rather than on campus. While there are no NTUAP students, the original mission of NTUAP was to provide educational opportunities to persons not reached by conventional means. The term NTUAP student is used in this report to refer to students who have taken one or more NTUAP courses. The program was geared towards a particular student population. One of the central focuses on this evaluation is the students. Specifically, we set out to determine whether today's NTUAP student population is the same as the population originally anticipated in the program's mission and discussed in the program documents. Areas examined, to determine who the students are, included: age, academic background, residence, reasons for coming to the university, and reasons for taking NTUAP courses.

The following analysis is based upon student questionnaire data obtained from 129 NTUAP students and upon student file data obtained from 260 NTUAP student files.

B. Demographics

According to the program documents, the average age of NTUAP students was 33. Data gathered from the student files revealed that
the largest percentage of students was between 31-35 years of age (see Table 1). The questionnaire data (see Table 2) found the highest percentage of students (7.6%) to be 30 years of age.

The program documents stated that most NTUAP students were employed, married, and had engaged in some form of post-secondary education before coming to the university. Our data found 80% of the students employed, 44% married, and 66.5% had some college credits before coming to the university (see Tables 3, 4, 5, and 6).

Fifty-seven and nine-tenths percent of the students had a high school quality point average (QPA) within the range of 2.6-3.5 (see Table 7). Twenty-two percent of the students received a score within the 951-1050 range on the Standardized Achievement Test (SAT) (see Table 8).

The majority of students (65%) reside within ______ county.

C. Course Taking Patterns and Completion Rates

As Tables 9 and 10 illustrate, the majority (82.7%) of NTUAP students are enrolled in the college and were attracted to the university by the college (59.7%).

While an examination of the student course taking patterns over a three-year period reveals that the greatest amount of credits taken by NTUAP students are the college course credits (see Table 11), 63.8% of the 129 students who responded to our survey (see Table 12) took between 1-3 NTUAP courses last term. Table 13 shows 50% of the students took between 1-3 on-campus courses last term. The program document data, reported earlier, stated that 71% of NTUAP students were taking NTUAP courses exclusively. Our findings revealed 13% or 34 of the 260 students studied took only NTUAP courses.
TABLE 1
MTUAP Student Ages

Total Student Sample = 240

<table>
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<tr>
<th>Age Range</th>
<th>Number of Students</th>
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<td>16-20</td>
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</tr>
<tr>
<td>21-25</td>
<td>21%</td>
</tr>
<tr>
<td>26-30</td>
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<td>16%</td>
</tr>
<tr>
<td>41-46</td>
<td>8%</td>
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<tr>
<td>47-50</td>
<td>3%</td>
</tr>
<tr>
<td>51-55</td>
<td>2%</td>
</tr>
<tr>
<td>56-60</td>
<td>1%</td>
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### TABLE 2
Student Ages

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<th>Age</th>
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<th>Percentage of Students</th>
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### TABLE 3
NTUAP Students' Transfer Credits

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Total: 87

High School Students: 33.5%
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<td>31-35</td>
<td>12</td>
</tr>
<tr>
<td>26-30</td>
<td>16</td>
</tr>
<tr>
<td>21-25</td>
<td>16</td>
</tr>
<tr>
<td>16-20</td>
<td>15</td>
</tr>
<tr>
<td>11-15</td>
<td>14</td>
</tr>
<tr>
<td>6-10</td>
<td>17</td>
</tr>
<tr>
<td>0-5</td>
<td>11</td>
</tr>
</tbody>
</table>

**TABLE 4**

Quartile

Q₃ → lies within this interval

Q₁ → lies within this interval
### TABLE 5

Median

<table>
<thead>
<tr>
<th>Credits</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>96-100</td>
<td>1</td>
</tr>
<tr>
<td>91-95</td>
<td>0</td>
</tr>
<tr>
<td>86-90</td>
<td>4</td>
</tr>
<tr>
<td>81-85</td>
<td>0</td>
</tr>
<tr>
<td>76-80</td>
<td>3</td>
</tr>
<tr>
<td>71-75</td>
<td>4</td>
</tr>
<tr>
<td>66-70</td>
<td>2</td>
</tr>
<tr>
<td>61-65</td>
<td>7</td>
</tr>
<tr>
<td>56-60</td>
<td>10</td>
</tr>
<tr>
<td>51-55</td>
<td>7</td>
</tr>
<tr>
<td>46-50</td>
<td>8</td>
</tr>
<tr>
<td>41-45</td>
<td>12</td>
</tr>
<tr>
<td>36-40</td>
<td>15</td>
</tr>
<tr>
<td>31-35</td>
<td>12</td>
</tr>
<tr>
<td>26-30</td>
<td>16</td>
</tr>
<tr>
<td>21-25</td>
<td>16</td>
</tr>
<tr>
<td>16-20</td>
<td>15</td>
</tr>
<tr>
<td>11-15</td>
<td>14</td>
</tr>
<tr>
<td>6-10</td>
<td>17</td>
</tr>
<tr>
<td>0-5</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>174</strong></td>
</tr>
</tbody>
</table>

1) \( \frac{N}{2} = \frac{174}{2} = 87 \)

\[ \text{Mdn} = 25.5 + \frac{14}{16}(5) = 29.875 \] (bottom)

\[ \text{Mdn} = 30.5 - \frac{2}{16}(5) = 29.875 \] (top)

85 = number of cases above the interval containing the median

73 = number of cases below the interval containing the median
TABLE 6
A Histogram Representing the Distribution of the Credits Transferred by 174 Students
TABLE 7
NTUAP Students' High School Quality Point Average (QPA)

Sample Population of Students = 226

<table>
<thead>
<tr>
<th>QPA</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.6-4.0</td>
<td>25</td>
</tr>
<tr>
<td>3.1-3.5</td>
<td>4</td>
</tr>
<tr>
<td>2.6-3.0</td>
<td>22</td>
</tr>
<tr>
<td>2.1-2.5</td>
<td>43</td>
</tr>
<tr>
<td>1.6-2.0</td>
<td>72</td>
</tr>
<tr>
<td>1.1-1.5</td>
<td>59</td>
</tr>
<tr>
<td>0.6-1.0</td>
<td>25</td>
</tr>
<tr>
<td>0-0.5</td>
<td>5</td>
</tr>
</tbody>
</table>

Percentage Distribution:
- 3.6-4.0: 11.3%
- 3.1-3.5: 26%
- 2.6-3.0: 31.9%
- 2.1-2.5: 19%
- 1.6-2.0: 9.7%
- 1.1-1.5: 1.8%
- 0.6-1.0: 0.3%
- 0-0.5: 0.5%
### Table 8

<table>
<thead>
<tr>
<th>SAT Scores</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1450-1600</td>
<td>1</td>
</tr>
<tr>
<td>1601-1700</td>
<td>1</td>
</tr>
<tr>
<td>1701-1800</td>
<td>2</td>
</tr>
<tr>
<td>1801-1900</td>
<td>4</td>
</tr>
<tr>
<td>1901-2000</td>
<td>6</td>
</tr>
<tr>
<td>2001-2100</td>
<td>12</td>
</tr>
<tr>
<td>2101-2200</td>
<td>17</td>
</tr>
<tr>
<td>2201-2300</td>
<td>17</td>
</tr>
<tr>
<td>2301-2400</td>
<td>10</td>
</tr>
<tr>
<td>2401-2500</td>
<td>8</td>
</tr>
<tr>
<td>2501-2600</td>
<td>8</td>
</tr>
<tr>
<td>2601-2700</td>
<td>6</td>
</tr>
<tr>
<td>2701-2800</td>
<td>4</td>
</tr>
<tr>
<td>2801-2900</td>
<td>2</td>
</tr>
<tr>
<td>2901-3000</td>
<td>1</td>
</tr>
</tbody>
</table>

**Sample Student Population = 101**
### TABLE 9
College or School Where Students Enrolled

<table>
<thead>
<tr>
<th>College or School Enrolled</th>
<th>Number of Students Responding</th>
<th>Percentage of Students Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day College</td>
<td>7</td>
<td>6.4</td>
</tr>
<tr>
<td>Night College</td>
<td>91</td>
<td>82.7</td>
</tr>
<tr>
<td>Nursing</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>Health Related Professions</td>
<td>4</td>
<td>3.6</td>
</tr>
<tr>
<td>Computer Science</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>Educational</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td>Social Work</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>MBA</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>Education</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>110</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

### TABLE 10
Office First Contacted for Enrolling at Pitt

<table>
<thead>
<tr>
<th>Office</th>
<th>Number of Students Responding</th>
<th>Percentage of Students Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day College</td>
<td>13</td>
<td>10.1</td>
</tr>
<tr>
<td>Night College</td>
<td>77</td>
<td>59.7</td>
</tr>
<tr>
<td>NTUAP</td>
<td>25</td>
<td>19.4</td>
</tr>
<tr>
<td>Branch Campus</td>
<td>4</td>
<td>3.1</td>
</tr>
<tr>
<td>Community Site</td>
<td>3</td>
<td>2.3</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>4.7</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>129</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
TABLE 11
NTUAP Student Credit Hours

<table>
<thead>
<tr>
<th>Term Enrolled</th>
<th>84-1</th>
<th>84-2</th>
<th>85-1</th>
<th>85-2</th>
<th>86-1</th>
<th>86-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTUAP Course Credits</td>
<td>111</td>
<td>141</td>
<td>189</td>
<td>231</td>
<td>534</td>
<td>478</td>
</tr>
<tr>
<td>Night College Course Credits</td>
<td>515</td>
<td>452</td>
<td>689</td>
<td>771</td>
<td>936</td>
<td>820</td>
</tr>
<tr>
<td>Day College Course Credits</td>
<td>124</td>
<td>108</td>
<td>93</td>
<td>97</td>
<td>66</td>
<td>111</td>
</tr>
</tbody>
</table>

TABLE 12
Number of NTUAP Courses Taken This Term

<table>
<thead>
<tr>
<th>Number of NTUAP Courses</th>
<th>Number of Students Responding</th>
<th>Percentage of students Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>45</td>
<td>35.4</td>
</tr>
<tr>
<td>1</td>
<td>50</td>
<td>39.4</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
<td>19.7</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>4.7</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>TOTAL</td>
<td>127</td>
<td>100.0</td>
</tr>
</tbody>
</table>
TABLE 13

Number of On-Campus Courses
Taken This Term

<table>
<thead>
<tr>
<th>Number of On-Campus Courses</th>
<th>Number of Students Responding</th>
<th>Percentage of Students Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>31</td>
<td>25.0</td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>19.4</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>5.6</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>2.4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>4.0</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Total</td>
<td>124</td>
<td>100.0</td>
</tr>
</tbody>
</table>
The findings of the questionnaires regarding the completion of NTUAP courses are very different from other data we have collected. The grade distribution analysis, for example, show some courses with G grade totals as high as 84.6%.

The median for the 116 non-traditional program courses was 43.4%. For the on-campus courses, the high G grade was 71.4% and the median was 2.2%.

Table 14 shows a high completion rate for NTUAP courses taken. One reason for this contradiction may be that the students responding to the questionnaire are of a certain type--high achievers, self-starters, more interested in the program, etc. Similarly, 43% of the students responding to this questionnaire indicated that they attended all of the workshops. This figure is higher than the 30-40% reported in other studies.

Fifty-six percent of the students planned on taking more NTUAP courses. Time conflicts (see Table 15) were the major reason why students indicated they were taking NTUAP courses, followed by family responsibilities, a preference for independent learning, and travel distance. These four reasons were the same reasons given in the program documents.

The major reason given by students for not taking more NTUAP courses was that they missed classroom interaction (see Table 16). Seventeen percent of the students responding listed graduation as their reason for not taking more NTUAP courses.

While the program documents stated that 50% of NTUAP students could not pursue their education if not for NTUAP, our findings show between 9% to 26% of the students would not pursue their college
# TABLE 14

A Comparison of NTUAP Courses Taken and Completed

<table>
<thead>
<tr>
<th>Number of NTUAP Courses</th>
<th>Taken</th>
<th></th>
<th>Completed</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>1</td>
<td>29</td>
<td>22.7</td>
<td>25</td>
<td>19.8</td>
</tr>
<tr>
<td>2</td>
<td>16</td>
<td>12.5</td>
<td>17</td>
<td>13.5</td>
</tr>
<tr>
<td>3</td>
<td>11</td>
<td>8.6</td>
<td>11</td>
<td>8.7</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>5.5</td>
<td>5</td>
<td>4.0</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
<td>7.8</td>
<td>10</td>
<td>7.9</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>5.5</td>
<td>4</td>
<td>3.2</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>3.1</td>
<td>3</td>
<td>2.4</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>1.6</td>
<td>3</td>
<td>2.4</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>3.9</td>
<td>5</td>
<td>4.0</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>3.1</td>
<td>3</td>
<td>2.4</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>0.8</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>0.8</td>
<td>3</td>
<td>2.4</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>0.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>3</td>
<td>2.3</td>
<td>2</td>
<td>1.6</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>0.8</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>0.8</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>40</td>
<td>1</td>
<td>0.8</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>104</td>
<td></td>
<td><strong>95</strong></td>
<td></td>
</tr>
</tbody>
</table>

N= Number of Students
% = Percent of Students
### TABLE 15

**Why Students Are Taking NTUAP Courses**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Number of Students Responding</th>
<th>Percentage of Students Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too far to travel</td>
<td>33</td>
<td>11.8</td>
</tr>
<tr>
<td>Time conflict</td>
<td>78</td>
<td>28.9</td>
</tr>
<tr>
<td>Family responsibilities</td>
<td>49</td>
<td>17.6</td>
</tr>
<tr>
<td>Prefer learning independently</td>
<td>35</td>
<td>12.5</td>
</tr>
<tr>
<td>Courses only offered through NTUAP this term</td>
<td>10</td>
<td>3.6</td>
</tr>
<tr>
<td>On-campus course/s closed</td>
<td>5</td>
<td>1.8</td>
</tr>
<tr>
<td>Physical limitations</td>
<td>4</td>
<td>1.4</td>
</tr>
<tr>
<td>Can take more credits during a term</td>
<td>30</td>
<td>10.8</td>
</tr>
<tr>
<td>Other</td>
<td>35</td>
<td>12.5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>279</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

### TABLE 16

**Reasons for Not Taking More NTUAP Courses**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Number of Students Responding</th>
<th>Percentage of Students Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>No NTUAP course offerings interesting to me</td>
<td>12</td>
<td>18.5</td>
</tr>
<tr>
<td>NTUAP courses too difficult</td>
<td>3</td>
<td>4.6</td>
</tr>
<tr>
<td>Difficulty with or unable to complete NTUAP courses</td>
<td>9</td>
<td>13.8</td>
</tr>
<tr>
<td>Missed classroom interaction</td>
<td>14</td>
<td>21.5</td>
</tr>
<tr>
<td>Other</td>
<td>27</td>
<td>41.5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>65</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
education without NTUAP courses.

The primary reason for enrolling at the university for 84% of the students was to earn a degree. Forty-seven percent of the students stated they would complete an entire degree through NTUAP if one were available in their field of study. The majority of students (53%) who indicated an interest in receiving an entire degree externally stated that they wanted the workshops to remain the same (see Table 17).

D. The Workshops

Courses offered through NTUAP typically include three interaction sessions, or workshops, during the 15 week term. Several of the questions asked of students referred to the workshops. As stated earlier in this report, the majority of students stated that they attended all the workshops for the course/s they were enrolled in (see Table 18). The major factor influencing workshop attendance was the student's schedule (33.5%) (see Table 19). The most frequent reasons given by students for not attending the workshops were because of work or another commitment on Saturday (20.4%) and because workshops are not mandatory (see Table 20). Students found the workshops most valuable for meeting with the instructor (42.6%), clarifying (42.2%) and discussing (41.4%) course material (see Table 21).

Regarding the length and number of workshops, the majority (39.8%) of students responded that the length of workshops should be decreased (see Table 22) with 43.9% of students indicating that the number of workshops should remain the same (see Table 23). Changes to the workshops are really dependent on the course said the majority (43.7%) of students (see Table 24).
### TABLE 17
Under What Conditions Students Wish To Receive Degree Through NTUAP

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Number of Students Responding</th>
<th>Percentage of Students Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>If workshops stayed as they are now</td>
<td>61</td>
<td>53.0</td>
</tr>
<tr>
<td>If courses were self-study</td>
<td>24</td>
<td>20.9</td>
</tr>
<tr>
<td>Workshops offered at other times</td>
<td>24</td>
<td>20.9</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>5.2</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>115</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

### TABLE 18
Number of Workshops Attended

<table>
<thead>
<tr>
<th>Number of Workshops Attended</th>
<th>Number of Students Responding</th>
<th>Percentage of Students Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only those required</td>
<td>10</td>
<td>8.1</td>
</tr>
<tr>
<td>All three or four</td>
<td>54</td>
<td>43.5</td>
</tr>
<tr>
<td>Only the first</td>
<td>5</td>
<td>4.0</td>
</tr>
<tr>
<td>First and second</td>
<td>3</td>
<td>2.4</td>
</tr>
<tr>
<td>Only the third</td>
<td>41</td>
<td>33.1</td>
</tr>
<tr>
<td>No pattern, depends on course</td>
<td>11</td>
<td>8.9</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>124</strong></td>
<td><strong>100.0</strong></td>
</tr>
<tr>
<td>Reason</td>
<td>Number of Students Responding</td>
<td>Percentage of Students Responding</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>If first workshop is good, I attend the others</td>
<td>20</td>
<td>12.7</td>
</tr>
<tr>
<td>Depends on my schedule</td>
<td>53</td>
<td>33.5</td>
</tr>
<tr>
<td>Depends on the weather</td>
<td>22</td>
<td>13.9</td>
</tr>
<tr>
<td>I attend if other students say the workshops are worth attending</td>
<td>5</td>
<td>3.2</td>
</tr>
<tr>
<td>If I am having difficulty with the course</td>
<td>17</td>
<td>10.8</td>
</tr>
<tr>
<td>If there is a review for the test</td>
<td>12</td>
<td>7.6</td>
</tr>
<tr>
<td>If I like the instructor</td>
<td>13</td>
<td>8.2</td>
</tr>
<tr>
<td>Other</td>
<td>16</td>
<td>10.1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>158</td>
<td>100.0</td>
</tr>
<tr>
<td>Reason</td>
<td>Number of Students Responding</td>
<td>Percentage of Students Responding</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>-------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Workshops are not mandatory</td>
<td>34</td>
<td>15.1</td>
</tr>
<tr>
<td>Workshops are not valuable</td>
<td>12</td>
<td>5.3</td>
</tr>
<tr>
<td>Workshops cover same material as study guide/textbooks</td>
<td>20</td>
<td>8.9</td>
</tr>
<tr>
<td>Material covered in workshops not tested</td>
<td>12</td>
<td>5.3</td>
</tr>
<tr>
<td>Workshop summary notes tell me all I need to know</td>
<td>10</td>
<td>4.4</td>
</tr>
<tr>
<td>Live out of state</td>
<td>4</td>
<td>1.8</td>
</tr>
<tr>
<td>Live far from campus</td>
<td>17</td>
<td>7.6</td>
</tr>
<tr>
<td>Work or another commitment on Saturday</td>
<td>46</td>
<td>20.4</td>
</tr>
<tr>
<td>Weather</td>
<td>26</td>
<td>11.6</td>
</tr>
<tr>
<td>Traffic</td>
<td>6</td>
<td>2.7</td>
</tr>
<tr>
<td>Parking</td>
<td>16</td>
<td>7.1</td>
</tr>
<tr>
<td>Don't like attending class</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>Too far behind in my studies</td>
<td>7</td>
<td>3.1</td>
</tr>
<tr>
<td>Physical limitations</td>
<td>2</td>
<td>0.9</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>4.9</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>225</strong></td>
<td><strong>100.0</strong></td>
</tr>
<tr>
<td>Reason</td>
<td>Very Valuable</td>
<td>Valuable</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>---------------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Meeting other students</td>
<td>12</td>
<td>11.5</td>
</tr>
<tr>
<td>Meeting with instructor</td>
<td>49</td>
<td>42.6</td>
</tr>
<tr>
<td>Asking questions</td>
<td>41</td>
<td>35.3</td>
</tr>
<tr>
<td>Discussing course material</td>
<td>48</td>
<td>41.4</td>
</tr>
<tr>
<td>Clarifying course material</td>
<td>49</td>
<td>42.2</td>
</tr>
<tr>
<td>Providing motivation to keep up with</td>
<td>27</td>
<td>24.1</td>
</tr>
<tr>
<td>continuing study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplemeting course material</td>
<td>24</td>
<td>21.4</td>
</tr>
</tbody>
</table>

N: Number of Students
%: Percent of Students
# TABLE 22

**Desired Length of Workshops**

<table>
<thead>
<tr>
<th>Desired Length of Workshops</th>
<th>Number of Students Responding</th>
<th>Percentage of Students Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased</td>
<td>13</td>
<td>10.6</td>
</tr>
<tr>
<td>Decreased</td>
<td>49</td>
<td>39.8</td>
</tr>
<tr>
<td>Remain the same</td>
<td>31</td>
<td>25.2</td>
</tr>
<tr>
<td>Depends on the course</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Depends on the instructor</td>
<td>29</td>
<td>23.6</td>
</tr>
<tr>
<td></td>
<td>123</td>
<td>100.0</td>
</tr>
</tbody>
</table>
TABLE 23
Desired Number of Workshops

<table>
<thead>
<tr>
<th>Desired Number of Workshops</th>
<th>Number of Students Responding</th>
<th>Percentage of Students Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased</td>
<td>10</td>
<td>8.1</td>
</tr>
<tr>
<td>Decreased</td>
<td>4</td>
<td>3.3</td>
</tr>
<tr>
<td>Remain the same</td>
<td>54</td>
<td>43.9</td>
</tr>
<tr>
<td>Depends on the course</td>
<td>36</td>
<td>29.3</td>
</tr>
<tr>
<td>Depends on the instructor</td>
<td>3</td>
<td>2.4</td>
</tr>
<tr>
<td>Not sure</td>
<td>16</td>
<td>13.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>123</td>
<td>100.0</td>
</tr>
</tbody>
</table>

TABLE 24
How Workshops Should Be Changed

<table>
<thead>
<tr>
<th>Change to Workshops</th>
<th>Number of Students Responding</th>
<th>Percentage of Students Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shorter w.s.* more often</td>
<td>10</td>
<td>8.4</td>
</tr>
<tr>
<td>Shorter w.s. less often</td>
<td>4</td>
<td>3.4</td>
</tr>
<tr>
<td>Longer w.s. less often</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Longer w.s. more often</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Depends on the course</td>
<td>52</td>
<td>43.7</td>
</tr>
<tr>
<td>They should remain as they are</td>
<td>40</td>
<td>33.6</td>
</tr>
<tr>
<td>Other (see list)</td>
<td>11</td>
<td>9.2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>119</td>
<td>100.0</td>
</tr>
</tbody>
</table>

* workshops
E. Summary

In designing NTUAP, the original Task Force recommended that the program be built for people who could not be reached by conventional means. Based on this data analysis, it appears that NTUAP is serving several populations. Distance may be a problem for the 35% of students residing outside of ___ county. As many as one-quarter of the NTUAP students indicated NTUAP courses were necessary for pursuing their college education. Family responsibilities, scheduling conflicts and other demands prohibited many students from participating in traditional education.

While some of these data coincided with data presented in the program documents, there were some incongruities as well. Although the questionnaire and student file findings provide much useful information about the current student populations, more studies are needed, particularly personal interviews, to better assess and serve the student populations.