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ABSTRACT

The Technical Assistance Development System--TADS (a project to provide technical assistance to personnel implementing programs for preschool handicapped children and their families) conducted an evaluation of three technical assistance needs assessment strategies during 1979-80. The three strategies were: (1) on-site--conducted by a trained needs assessor at the program's site; (2) telephone--conducted by a trained needs assessor through a series of telephone conversations; and (3) self-administered--conducted by the program's staff using procedures and materials provided by TADS. The 64 programs participating were ramdomly assigned to one of the three strategies. Results indicated that all three strategies adequately identified technical assistance needs and were similar on most variables. Perceptions of the participants occasionally favored on-site over telephone assessments. Comments from participants suggested that while the strategies were comparable for identifying technical assistance needs, there were some qualitative characteristics on which they differed. Appendixes include a report on the statistical analyses described in the text, along with tables; and a report of additional findings in the areas of project staff satisfaction, project staff perceptions of their needs, and targeted impacts of technical assistance. (Author/SW)

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by
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Given the caliber of assistance we received, we must confess that any inconsistencies and inaccuracies are our own.

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INTRODUCTION

BACKGROUND

A new type of organization is becoming prominent in government sponsored social programs. It is the technical assistance (TA) agency. The general purpose of technical assistance agencies is to provide assistance which will improve the overall development, implementation and/or evaluation of programs which have been funded to address a

particular social problem, issue, or interest. Technical assistance agencies have based their assistance on the knowledge and experience of others in the fields of: (1) utilization of knowledge, research, and innovation, e.g., Havelock (1971, 1973), Rogers and Shoemaker (1971); (2) change, e.g., Bennis, Benne and Chin (1969), Zaltman, Florio and Sikorski (1977); (3) training, e.g., Craig (1976); (4) consultation and counseling, e.g., Blake and Mouton (1976), Lippitt and Lippitt (1978); (5) communication/resource linkage, e.g., Berlo (1960); and (6) organizational development, e.g., Schmuck, Runkel, Arends and Arends (1977), Spencer and Cullen (1978).

While the major approach or emphasis of particular TA agencies is dependent upon their mission and the characteristics of their clients, they appear to have in common the inclusion of activities based on the concepts of:

> ...(a) communication between a technical assistance provider and a client; (b) a linkage between needs and resources; (c) a mechanism for the acquisition of new knowledge, competencies, and attitudes; (d) the provision of aid in the development of programs and organizations; and (e) a helping relationship between the technical assistance agency and client. (Suarez, 1980, pp. 18-19)

The Technical Assistance Development System (TADS) is one such organization, funded under a contract from the Office of Special Education, U.S. Department of Education. TADS' purpose is to provide comprehensive assistance to personnel implementing programs for pre-school handicapped children and their families. Both TADS and the programs served by TADS are components of the national Handicapped Children's Early Education Program (HCEEP).

HCEEP funded Demonstration Projects, in the eastern United States, are one of TADS major client groups. The mission of these Demonstration Projects is to: (a) develop and implement model service

delivery programs for young (birth to eight years) handicapped children and their families, and (b) demonstrate these models to other agencies interested in developing their own services for similar children and families.

TADS assists these projects in managing their programs and accomplishing their goals more effectively through a broad range of systematic support and consultative services. Access to expertise not available locally and to materials designed specifically for these projects is available through TADS. TADS also provides opportunities to increase collaboration and information sharing among the HCEEP projects. The HCEEP projects' participation in technical assistance is encouraged but is voluntary. The TADS' services are available at no extra cost to the projects.

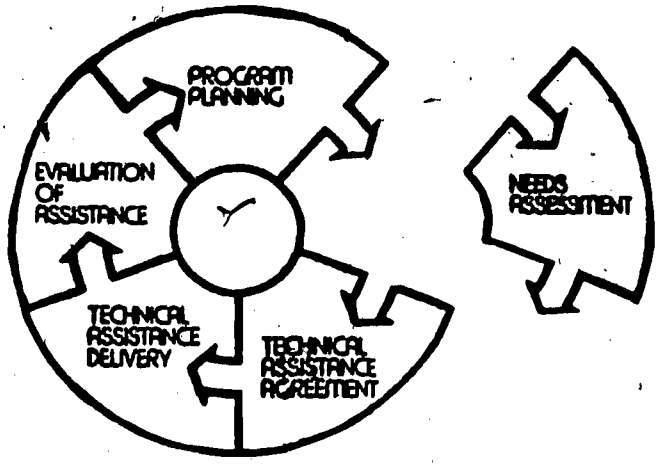
In order to provide appropriate and effective assistance to HCEEP projects, TADS' personnel must know the needs or barriers to improvement that face the projects. The process of identification of these needs, needs assessment, is, therefore, a critical element in providing technical assistance.

As illustrated (Figure 1), needs assessment is one of the five major stages in the yearly cycle of technical assistance provided by TADS. It provides the link between the client's existing plans and the services provided by TADS.

The primary purpose of the needs assessment is to identify areas in which a client's program might be enhanced by the receipt of outside assistance. The needs assessment process is designed to accomplish three major objectives: (a) to provide administrative technical

Figure 1

TADS MODEL OF TECHNICAL ASSISTANCE



assistance to clients through a comprehensive program review and analysis; (b) to identify technical assistance needs and a plan to address these needs; and (c) to establish a positive working relationship between the client and TADS.

Technical assistance needs assessments are based on a set of seven assumptions developed by TADS:

1. A systematic needs assessment process is essential to effectively identify Technical Assistance needs.
2. A needs assessment must provide a comprehensive review of the client program to identify current program status.
3. Technical Assistance needs can best be identified by a comprehensive review of the client's program.
4. Needs are most accurately identified in an interactive process between the Technical Assistance provider and the client.
5. Roles, responsibilities, and expectations for the provision of Technical Assistance must be clarified during the needs assessment.
6. A needs assessment must establish and/or enhance a trusting relationship between the client and the Technical Assistance provider.
7. A needs assessment must occur before extensive individualized Technical Assistance is provided.

The activities or tasks which are considered necessary to accomplish a needs assessment are divided into three sequential activity areas: preparation, implementation, and follow-up activities. Preparation activities include scheduling the needs assessment, preparing for the needs assessment, and establishing agendas for the assessment. Implementation activities include an overview and orientation to TADS' needs assessment, a comprehensive review of all program components, identification of technical assistance needs and determining their importance, developing a plan for technical assistance, and evaluating the needs assessment. Follow-up activities include a TADS' staff review of all needs assessment materials, the clarification of statements included in the materials if necessary, the development of an agreement specifying the needs and technical assistance to be delivered, and consensus from the client regarding the agreement.

During the first eight years of operation, TADS primarily employed an on-site needs assessment procedure which used a trained needs assessor (a TADS' staff person or TADS' consultant) who visited the project's site to conduct the needs assessment. This method of conducting needs assessment has proved to be highly successful in terms of client satisfaction and identification of technical assistance needs. The costs of conducting this type of needs assessment, however, are high. With costs increasing, both TADS and the Office of Special Education were interested in determining if less expensive needs assessment strategies could be used. As a result, the TADS' staff decided in 1979 to use several needs assessment strategies varying in cost and study the results of these assessments to determine if less costly strategies were feasible and effective.

OVERALL APPROACH

Evaluation information was needed to make a decision, i.e., to aid in deciding which strategies might best and most economically be used to conduct a TADS' needs assessment. The inquiry approach selected was that of Input Evaluation as defined by Stufflebeam (Stufflebeam, 1968; Stufflebeam, et al., 1971) in his Context, Input, Process, Product (CIPP) evaluation model. Input evaluation, as described by Stufflebeam, identifies and assesses alternative plans or strategies that might be chosen to achieve selected objectives or goals. Its purpose is to provide information to make structuring decisions, i.e., those that lead to the design or selection of procedures.

The overall purpose of this evaluation study was to provide information to decide if the selected strategies were comparable. If so, less expensive strategies could be used in conducting future TADS' needs assessments. An additional purpose was prompted by one of the few studies of needs assessment strategies (Clifton, 1969). This study suggested that different strategies might produce substantially different needs assessments. Therefore, another purpose was to provide evaluation information which would aid in determining if the selected strategies did produce the same needs assessment.

METHODS AND PROCEDURES

DESIGN

Strategy Selection. After reviewing needs assessment strategies employed by TADS in previous years and the literature on needs assessment designs and characteristics of technical assistance efforts, the TADS' staff generated a brief description of 13 technical assistance needs assessment strategies. After reviewing each strategy, 10 were eliminated because they failed to provide an adequate opportunity to meet one or more of the seven TADS' assumptions for needs assessments that were listed previously. The three remaining strategies, on-site, telephone, and self-administered needs assessments, were chosen for study.

In order to determine if the strategies were comparable for conducting a TADS' needs assessment, it was necessary to structure them so that they varied primarily in cost and not other areas. Since the primary cost of technical assistance services are the travel expenses and fees for consultants, the strategies were designed to be identical in all aspects except needs assessor (or consultant) involvement.

More precisely, the strategies were designed as follows:

1. ON-SITE NEEDS ASSESSMENT (High Cost/High Needs Assessor Involvement) -- All needs assessment implementation activities were conducted at the project site by the needs assessor and project staff under the leadership of the needs assessor. These implementation activities included the overview and orientation to TADS and the needs assessment process, the comprehensive review of the program, the identification

of project and technical assistance needs, the determination of the priority of TA needs, and the development of a plan for technical assistance. All specified needs assessment materials were completed and sent to TADS by the needs assessor. The needs assessor, therefore, was involved in the entire needs assessment process.

2. TELEPHONE NEEDS ASSESSMENT (Moderate Cost/Moderate Needs Assessor Involvement) -- In this strategy the project staff conducted a programmatic review and sent the results to the needs assessor. The needs assessor then reviewed the materials and completed the process with a project staff member through a series of three to five telephone conversations. Then the needs assessor completed all materials and sent them to TADS. The needs assessor was involved in some, but not all, needs assessment activities.

3. SELF-ADMINISTERED ASSESSMENT (Low Cost/No Needs Assessor Involvement) -- In this strategy the project staff completed all needs assessment activities following the procedures specified by TADS. One person on the TADS' staff was available by phone during the assessment to answer questions and to clarify procedures. The project staff then sent all completed materials to TADS. There was no preplanned, direct involvement of a TADS' trained needs assessor.

Evaluation Design. Four major areas of comparison were selected on the basis of the information needs of TADS and its funding agency, the previous experiences of TADS in conducting needs assessments, and the literature cited in the introduction section. The four comparison areas were: (1) integrity of the strategies, (2) perceptions of the

participants, (3) level of time and effort, and (4) results of the technical assistance following needs assessment. These four areas were considered to be hierarchical in nature, i.e., the first area was most critical, the second was important and became a critical determinant if the strategies were comparable in the first areas, and so forth.

Before considering other factors, comparisons in the first area, integrity of the strategies, were needed to establish that the three strategies were indeed variations of the same needs assessment. This area was operationally defined as consisting of four variables. The first variable, "Criterion Met," was the extent which each strategy met the established criteria for a TADS needs assessment. Five criteria statements were drawn from the TADS' assumptions for a needs assessment. The five criteria statements were:

1. The needs assessment provided a comprehensive review of the project.
2. The needs of the project, those requiring and not requiring technical assistance, were identified.
3. A list of clearly specified needs to be addressed by technical assistance was developed.
4. Technical assistance activities for the needs described in item 3 above were identified.
5. Roles and responsibilities for the project staff and TADS in planning and carrying out technical assistance were clarified.

The second variable, "similarity of needs," was defined as: (a) number of needs identified per project, and (b) type of needs identified in terms of their programmatic content area and type of technical assistance needed. The third variable, "stability of needs," was the

extent to which the needs remained unchanged during the year. The final and fourth variable, "additional accomplishments," was the extent to which additional occurrences during the needs assessment were similar in number and type.

If the integrity of the strategies was determined to be similar, then the next major concern was the area of perceptions of the participants. Participants include both the project staffs and needs assessors. Three distinct perceptions were investigated: (1) "project staff satisfaction" with the needs assessment strategy in which they participated, (2) "appropriateness of the strategy" as perceived by both the project staffs and needs assessors, and (3) the "strengths and weaknesses" of the strategy as perceived by both the project staffs and needs assessors.

The third area of comparison was level of time and effort. Three variables defined this area: (1) "calendar days for conducting" which was the number of days from the first scheduled day of the needs assessment to the day upon which the needs assessment materials were received at the TADS' office; (2) "person hours for conducting" which included hours spent in preparation and implementation by the project staffs, needs assessors, and TADS staff; and (3) "follow-up person hours for agreement development" which included only the TADS staff time. (See page 5 for a description of the activities included in preparation, implementation, and follow-up for needs assessments.)

The fourth and final comparison area was the results of technical assistance following needs assessments. Four variables defined this area: (1) "satisfaction with individual technical assistance services" which was a project staff rating for each technical assistance service described in the technical assistance agreement; (2) "progress in meeting needs" which

was the difference between the project's status in relation to identified needs prior to receiving individualized TA and at the end of the year; (3) "overall impacts of technical assistance" which were project ratings of both organizational and programmatic impacts of the technical assistance received during the year; and (4) "overall satisfaction with technical assistance" reported by project staffs at the end of the year. This comparison area was the furthest removed from the needs assessment and, therefore, the last area considered. This was because the project staffs' perceptions of the results of technical assistance were influenced not only by needs assessments, but also by all the interactions with the TADS staff, TADS publications, and TADS' consultants during the entire year. It did seem important, however, to know if responses to subsequent TA were in any way different for any of the strategies.

In summary, the four major areas of comparison were defined by fourteen distinct variables. Figure 2 gives the complete design.

PROCEDURES

Sample Selection. Seventy-one projects composed the TADS' client group of demonstration projects during 1979-80. Two of these were excluded from the study because they were participating in a TADS case study which required a special needs assessment arrangement. Another project was excluded because it was different from all the other projects in the study, i.e., it did not provide services to children or parents directly. The total group which could be considered as subjects of the study were, therefore, sixty-eight demonstration projects.

Figure 2

Input Evaluation Design to Determine the Comparibility of Three Needs Assessment Strategies

Areas of Comparison	Needs Assessment Strategies		
	ON-SITE NEEDS ASSESSMENT (High costs with high involvement of a needs assessor)	TELEPHONE NEEDS ASSESSMENT (Moderate costs with moderate involvement of a needs assessor)	SELF-ADMINISTERED NEEDS ASSESSMENT (Low costs with no involvement of a needs assessor)
Area 1 - INTEGRITY OF THE STRATEGIES 1. Criteria Met 2. Similarity of Needs 3. Stability of Needs 4. Additional Accomplishments			
Area 2 - PERCEPTIONS OF THE PARTICIPANTS 1. Project Staff Satisfaction 2. Appropriateness of the Strategy 3. Strengths and Weaknesses			
Area 3 - LEVEL OF TIME AND EFFORT 1. Calendar Days for Conducting 2. Person Hours for Conducting 3. Follow-up Person Hours for Agreement Development			
Area 4 - RESULTS OF TECHNICAL ASSISTANCE FOLLOWING NEEDS ASSESSMENT 1. Satisfaction with Individual Technical Assistance Services 2. Progress in Meeting Needs 3. Overall Impacts of Technical Assistance 4. Overall Satisfaction with Technical Assistance			

The opinions of TADS' experienced staff and a review of the organizational change literature (Derr, 1976; Greiner, 1977; Spencer & Cullen, 1978) indicate the results of different needs assessment strategies may be affected differentially by projects in different stages of development. Therefore, a stratified random sampling design, using year of funding as the stratifying variable, was used to assign projects to strategies (see Table 1).

Table 1
Stratified Random Assignment PRIOR TO ATTRITION

	Type of Needs Assessment		
Year of Funding	On-Site (N=22)	Telephone (N=23)	Self-Administered (N=23)
First (N=18)	6	6	6
Second (N=21)	7	7	7
Third (N=29)	9	10	10

TOTAL N=68

Since all interactions and services from TADS are voluntary, three projects, which were in their third year of funding, chose to decline a needs assessment, and one project, in its second year, chose to change to another strategy. All four projects were, therefore, eliminated from the study, leaving a total sample size of 64.

Table 2
Assignment of Projects AFTER ATTRITION

	Type of Needs Assessment		
Year of Funding	On-Site (N=21)	Telephone (N=20)	Self-Administered (N=23)
First (N=18)	6	6	6
Second (N=20)	7	6[a]	7
Third (N=26)	8[a]	8[a]	10

[a]Cells with Change

TOTAL N=64

Because attrition was low (less than 6%) and there was little change in the proportions of projects in each cell, no changes were made in the original sampling plan or implementation of the study.

Implementation of Needs Assessment Strategies. During September and October 1979, the directors/coordinators of the 68 (later 64) demonstration projects participating in the evaluation study were informed which needs assessment strategy had been assigned to their project and were asked which calendar dates they preferred to begin the TADS needs assessment. Drawing from a cadre of approximately thirty previously trained needs assessors, TADS then assigned one needs assessor to each project having an on-site or telephone needs assessment. Needs assessor assignment was made on the basis of the same criteria for each client, i.e., (1) the needs assessor's experience relative to the goals and objectives of the project, (2) TADS perception that the needs assessor and the project would be compatible, and (3) availability. Since the basic procedures for conducting the needs assessment strategies were similar to the procedures and materials used in the past, no additional direct training for needs assessors was deemed necessary for implementation of the study.

Procedural manuals describing the steps in the needs assessment had been developed for each strategy for both project staff and needs assessors. They provided detailed instructions for conducting the assessments and were sent to the project staffs and needs assessors prior to the scheduled date of the assessment. The assessments were then implemented as scheduled.

Data Collection. The three groups responsible for providing information regarding the needs assessments were: (1) staff members of the demonstration projects, (2) TADS' needs assessors, and (3) TADS' staff members. Each demonstration project was responsible for reporting the number of staff participating in the needs assessment and the number of hours each was involved. Also, the director/coordinator had responsibility for completing a "Project Evaluation of Needs Assessment" form which gathered: (1) perceptions of the extent to which the 5 criteria for a TADS' needs assessment were met, (2) additional accomplishments of the needs assessment, (3) satisfaction with the needs assessment, (4) perception of the appropriateness of the strategy in which the project participated, and (5) perceptions of strengths and weaknesses of the strategy. The needs assessors also completed an evaluation form. The needs assessors' forms contained the same items as the project's, except the satisfaction items were omitted and an item requesting involvement time was added. The TADS' staff maintained: (1) a time log for all of their activities associated with needs assessment; (2) a needs assessment monitoring log in which the dates of implementation and follow-up activities were recorded; and (3) a coordinator's monitoring notebook which contained copies of all agreements, notes about all transactions with the projects regarding delivery of services, and any changes made in the agreements.

Data regarding the technical assistance received during the year was gathered on evaluation forms for each technical assistance service and an end-of-year survey. These forms and surveys,

completed by project staffs, provided information regarding satisfaction with the technical assistance, progress during the year in meeting identified technical assistance needs, and impacts of technical assistance.

RESULTS

INTRODUCTION

As presented in the previous sections, the overall purposes of this evaluation study were to decide if the three selected needs assessment strategies were comparable and if the strategies produced the same needs assessment. Sixty-four projects were classified by year of funding, and then randomly assigned to one of the three strategies. The four comparisons areas for the strategies were described and defined by 14 variables. The data associated with these variables were gathered by the administration of survey evaluation forms and maintenance of time and monitoring logs. The results, described in this section of the report, are based on the information collected by these forms and logs. The return and maintenance rates were very high: 90% for all types of survey evaluation forms, and 100% for both the time and monitoring logs. Minor variations in sample sizes (or "n" values), from the total number of projects listed in Table 2 (page 13), are due to the varying return rates, and/or partial responses to a particular item on a returned survey form.

The results of the study, described in this section, are in the order given in Figure 2 (page 12): integrity of the strategies, perceptions of the participants, level of time and effort, and results of technical assistance following needs assessments.

In order to promote a focus on and an understanding of the results, descriptions of statistical tests and specific statistical analyses used are not included in the text. Instead, they are referenced in

the text and included in Appendix A. In addition to these analyses, several additional analyses were conducted in areas of interest to the TADS staff. These analyses, and the results associated with them, are described in Appendix B.

FINDINGS

Integrity of the Strategies. The results of the analyses, of the four variables defining this comparison area, indicated that all three strategies could be used to produce a TADS-specific needs assessment. Responses from both the project staffs and needs assessors on the variable, "criteria met," indicated that all five criterion statements were rated highly (see Table 3). While the on-site strategy tended to receive slightly higher ratings, there was only one statistically significant different result. The project staffs participating in the on-site strategy rated the criterion statement, "roles/responsibilities," significantly higher than did the project staffs participating in the telephone strategy (see Tables 19 and 20 in Appendix A). However, the same result was not found for the ratings by the needs assessors.

Analysis of the 168 needs, identified during the needs assessments, indicated few differences among the three strategies on the second variable, "similarity of needs." There were no statistically significant differences (see Table 21 in Appendix A) in the average number of needs identified per project by type of needs assessment (on-site, $\underline{n}$=59, $\underline{M}$=2.81; telephone, $\underline{n}$=53, $\underline{M}$=2.65; self, $\underline{n}$=56, $\underline{M}$=2.43). Statistical analyses of the type of needs identified, in terms of both programmatic content area and type of technical assistance

Table 3

Means and Standard Deviations of Responses Regarding the Extent to Which Criteria for the Needs Assessments Were Met

Criteria		Project Ratings[a]			Needs Assessor[a] Ratings	
		on-site (n=21)	telephone (n=19)	self (n=22)	on-site (n=21)	telephone (n=19)
1. Comprehensive Review	M	5.00	4.44	4.77	4.57	3.94
	SD	.55	1.25	.61	1.08	1.16
2. Project Needs Identified	M	5.10	4.68	4.86	4.71	4.47
	SD	.44	.94	.47	1.01	1.01
3. TA Needs Identified	M	5.19	4.79	4.71	4.81	4.74
	SD	.40	.92	.56	.93	.93
4. TA Activities Identified	M	5.05	4.68	4.67	4.57	4.74
	SD	.59	.94	.80	1.08	.93
5. Roles/Responsibilities	M	4.95	4.37	4.95	4.67	4.84
	SD	.59	.76	.64	1.15	.60

[a]Based on a 6 point scale where 1 = Not Met; 3 = Met Partially; 5 = Met Completely; and 6 = Exceeded Stated Criterion

needed, were not conducted due to the small numbers in some categories. However, few differences were discovered with most of these being in low incidence areas (see Tables 4 and 5).

Table 4

Percentage of Needs Identified by Programmatic Content Area

Programmatic Content Area		Type of Needs Assessment			Total Needs (n=168)
		On-Site (n=59)	Telephone (n=53)	Self (n=56)	
High Incidence	Demonstration/Dissemination	27%	35%	25%	27%
	Service for Children	20%	28%	23%	24%
	Evaluation	24%	21%	16%	20%
Low Incidence	Services for Parents	8%	9%	16%	11%
	Administration/Management	8%	8%	14%	10%
	Staff Development	12%	4%	5%	7%

Table 5

Percentage of Needs Identified by Type of Technical Assistance Needed

Type of Technical Assistance Needed		Type of Needs Assessment			Total Needs (n=168)
		On-Site (n=59)	Telephone (n=53)	Self (n=56)	
High Incidence	Information	49%	47%	46%	48%
	Revisions/Refinement	20%	23%	23%	22%
Low Incidence	Skills/Competencies	7%	13%	9%	9%
	Development	10%	9%	9%	9%
	Planning	10%	6%	5%	7%
	Decision-Making	3%	2%	7%	4%

The third variable, "stability of needs," was measured by the numbers of changes in needs during the year. Overall, 20% of the 168 identified needs changed. The on-site strategy had 14 (24%) needs that changed, telephone had 12 (23%) that changed, and self-assessments had 8 (14%) changes. These differences were not statistically significant (see Table 22 in Appendix A).

The final variable of this comparison area was measured by the number and type of "additional accomplishments," which were reported by the participants in the three strategies. While slightly more additional accomplishments were reported by the on-site participants (see Table 6), the differencies were not statistically significant (see Table 23 in Appendix A). A review of the types of additional accomplishments, described by participants, revealed that the program review and planning were the most frequent additional accomplishments for all strategies (see Table 6). Other common accomplishments related to increased staff awareness, understanding of their project, and increased staff morale. Strategies involving needs assessors produced

unique accomplishments, e.g., the provision to the staff of new information in on-site and telephone assessments, and the opportunity for staffs to share their successes during on-site assessments.

Table 6

Percentage of Projects and Needs Assessors Indicating Additional Accomplishments AND Frequency of Types of Additional Accomplishments

	Additional Accomplishments	Project Staffs' Responses			Needs Assessor's Responses	
		ON-SITE n=19	TELEPHONE n=14	SELF n=21	ON-SITE n=20	TELEPHONE n=16
NUMBER	Number of Projects	13	8	12	13	9
	Percentage of Projects	68%	57%	57%	65%	56%
TYPE	Frequency of Additional Accomplishments Comments					
	Program Review/Planning	4	3	8	3	2
	New Information	4	1	--	3	4
	Understanding Role as HCEEP Project	2	3	2	1	1
	Increased Staff Morale	1	1	1	2	--
	Opportunity to Share Sucesses	--	--	--	4	--
	Increased Staff Awareness of Roles	2	--	2	--	--
	Increased Awareness of TADS Role	--	1	--	2	1
	Other	--	--	--	1	1
	TOTALS	13	9[a]	13[a]	16[a]	9

[a]These columns total more than the number of projects or needs assessors indicating an additional accomplishment because more than one accomplishment comment was listed.

Perceptions of the Participants. While some similarities were found in this comparison area, differences did emerge regarding the perceptions of the participants about the on-site and telephone strategies. The first variable, "project staff satisfaction," was measured

by project staffs ratings of four satisfaction items. While the self-assessment had slightly higher ratings than the other strategies (see Table 7), none of the differences in the ratings of the four items were statistically significant (see Table 24 in Appendix A).

Table 7

Means and Standard Deviations of Project Staff Ratings of Satisfaction with Needs Assessments

Satisfaction Items		Project Staffs' Ratings[a] On-Site (n=21)	Telephone (n=14)	Self (n=21)
1. Expectations Met	M	4.76	4.53	4.76
	SD	1.00	.77	.54
2. Usefulness	M	4.81	4.37	4.91
	SD	.93	.96	.53
3. Quality	M	4.81	4.24	4.95
	SD	.68	1.09	.65
4. Overall Satisfaction	M	4.81	4.29	4.82
	SD	.87	1.26	.39

[a]Based on a 6 point scale where 1 = Unsatisfactory; 3 = Average; 5 = Excellent; and 6 = Exceptional.

The second variable, "appropriateness of the strategy," was measured by the project staffs and needs assessors responses to the questions: "If given a choice, which type of needs assessment do you believe would have been most effective for the project this year?;" and "What are the reasons for this choice?" The participants in the on-site strategy tended to choose that strategy as most appropriate more often than participants in the other two strategies (see Table 8). However, only the differences between the project staffs and needs

assessors participating in the on-site and telephone strategies were statistically significant (see Table 25 in Appendix A).

Table 8

Frequency and Percentage of Project Staffs and Needs Assessors Indicating that the Strategy in Which They Participated Was Most Appropriate.

Appropriateness	Project Staffs			Needs Assessors	
	On-Site (n=21)	Telephone (n=20)	Self (n=23)	On-Site (n=21)	Telephone (n=20)
Frequency of Agreement	17	7	13	16	4
Percentage of Agreement	81%	35%	57%	76%	20%

The needs assessment participants provided reasons to support the choices they made. If they chose the same type of strategy in which they participated, then their reasons were perceived to provide support for the appropriateness of that strategy. Conversely, if they chose a different strategy, the reasons were perceived to support the inappropriateness of the strategy in which they particpated. Tables 9 and 10 contain the reasons that were listed by two or more participants. All of the reasons classified in the "other" category are unique responses.

The participants in the on-site strategy listed different reasons for both appropriateness and inappropriateness than either the telephone or self-administered strategy participants (Table 9 compared to Table 10). The reasons given for support of the on-site strategy were all associated with the presence of a needs assessor (see Table 9). The only commonly mentioned reason for the on-site strategy being inappropriate was when the project staffs believed that they knew their own needs.

Table 9

Reasons for Appropriateness or Inappropriateness Given by On-Site Needs Assessment Participants

	Reasons	Frequency of Reasons[a]	
		Project Staffs (n=20)	Needs Assessors (n=20)
Appropriate	1. Opportunity for face to face interaction with needs assessor	2	5
	2. External/objective view of the program can be obtained	4	---
	3. Program (procedures and materials) can be observed as it operates, as a source of information for determining needs	4	---
	4. Needs assessor can gain better understanding of program and become acquainted with staff	2	---
	5. Project and/or staff members are new	---	6
	6. TADS process of needs assessment and technical assistance available can be explained	---	4
	7. Technical assistance can be provided during the needs assessment	---	2
	8. Positive feedback and/or support can be given to staff	---	2
	9. Other	7	6
Inappropriate	1. Project staff knows and can identify own needs	2	---
	2. Other	3	4

[a]The total number of reasons may be more than the number of projects or needs assessors because more than one response was given.

Table 10

Reasons for Appropriateness or Inappropriateness Given by Telephone and Self-Administered Needs Assessment Participants

	Reasons	Frequency of Reasons[a]		
		Telephone		Self
		Project Staffs (n=17)	Needs Assessors (n=17)	Project Staffs (n=18)
Appropriate	1. Project staff knows TADS needs assessment process and can implement it.	3	2	4
	2. Process is efficient in terms of time, energy, and/or cost.	3	---	4
	3. Project staff knows and can identify its own needs.	2	---	3
	4. Other	2	2	3
Inappropriate	1. On-site assessor can gain a better understanding of the program and become acquainted with project staff.	---	4	---
	2. Project staff knows TADS need assessment process and can implement it.	---	2	---
	3. Technical assistance can be provided during an on-site needs assessment.	---	2	---
	4. TADS process of needs assessment and technical assistance available can be best explained on-site.	---	2	---
	5. Other	9	9	10

[a]The total number of reasons may be more than the number of projects or needs assessors because more than one response was given.

There was some overlap in the reasons given by the participants in support of the telephone and self-administered strategies (see Table 10). These reasons focused on the efficiency of the strategies and the ability of the staffs to conduct major portions of the assessments. The needs assessors participating in the telephone strategy were the only participants in either the self or telephone strategies which gave common reasons for the inappropriateness of the strategy. These reasons were associated with the project staffs' inability to conduct the needs assessment, and the loss of benefits derived from the needs assessor not being on-site.

The third and final variable of this comparison area was "strengths and weaknesses." Participants in all three strategies indicated there to be strengths and weaknesses in the strategy in which they participated (see Table 11). Most participants found there to be strengths in all three strategies. The differences in perceptions of strengths, by the participants, among the three strategies were not statistically significant (see Table 26 in Appendix A).

Table 11

Frequency and Percentage of Participants Indicating That There Were Strengths and/or Weaknesses of the Strategies

Type of Comments		Needs Assessment Strategy				
		On-Site		Telephone		Self
		Project Staff	Needs Assessors	Project Staff	Needs Assessors	Project Staff
STRENGTHS		(n=19)	(n=18)	(n=15)	(n=18)	(n=21)
	Frequency	14	14	12	11	13
	Percentage	74%	78%	80%	61%	62%
WEAKNESSES		(n=18)	(n=20)	(n=15)	(n=19)	(n=20)
	Frequency	4	7	10	11	8
	Percentage	22%	35%	67%	58%	40%

Strengths of all the strategies were described by the participants to be benefits to the staff and the comprehensive review (see Table 12). More strengths were listed for on-site assessments and were associated with the people involved, i.e., benefits to staff, the needs assessor, preparation of the staff, etc. Strengths of the telephone assessment included both the procedures and benefits to the staff. Most of the strengths listed for self-administered assessments were associated with the TADS needs assessment process.

Participants in the telephone strategy indicated more weaknesses than either the self or on-site strategy participants. However, only the responses of the project staffs participating in the telephone strategy were statistically significantly different from the project staffs in on-site strategy (see Table 27 in Apoendix A). Most of the weaknesses listed by participants in all three strategies were associated with the specific procedures and/or materials used to conduct the assessments and were aimed at their detail and seemingly rigid structure. In addition, a weakness listed for on-site assessments suggested a lack of flexibility or adaptation of the process to the unique characteristics or needs at the project site. The notable weaknesses of the telephone assessments had to do with the amount of time required to complete the needs assessment.

Level of Time and Effort. Analysis of the first variable associated with this comparison area, "calendar days for conducting," indicated that the telephone strategy took a greater number of days to complete, self-assessment strategy next, and on-site strategy took the fewest number of days (see Table 13). All three comparisons of the number of calendar days for conducting the needs assessments were statistically significant (see Tables 28 and 24 in Appendix A).

Table 12

Strengths and Weaknesses Comments About the Strategies As Stated by the Participants

Comments	Frequency of Comments[a]				
	On-Site		Telephone		Self
	Project Staffs	Needs Assessors	Project Staffs	Needs Assessors	Project Staffs
STRENGTHS	(n=14)	(n=13)	(n=11)	(n=9)	(n=13)
1. Benefits to staff (e.g., better understanding, increased morale, etc.)	3	3	2	---	3
2. Comprehensive review	5	---	3	---	3
3. Needs Assessment materials.	---	3	2	4	---
4. Structure Approach	---	---	---	2	2
5. Identification of strengths and weaknesses, direction provided for future activities	2	---	---	---	4
6. Establishment of positive relationship with TADS	2	---	---	---	---
7. Preparation of staff prior to needs assessment	---	3	---	2	---
8. Needs assessor (e.g., expertise, flexibility, familiarity with project, etc.)	4	---	---	---	---
9. Other	---	6	4	3	1
WEAKNESSES	(n=4)	(n=9)	(n=11)	(n=9)	(n=8)
1. Needs assessment materials (e.g., too detailed, lengthy, etc.)	2	3	4	---	4
2. Lengthiness of the process	---	3	6	4	---
3. Unique nature of the project was not addressed	2	---	---	---	---
4. Rigidity of procedure	---	3	---	---	---
5. Failure to obtain outside, objective view of project	---	---	---	---	2
6. Other	1	1	4	5	3

[a]The total number of comments may be more than the number of projects or needs assessors because more than one comment was made.

Table 13

Calendar Day for Conducting the Needs Assessment

		On-Site (n=21)	Telephone (n=20)	Self (n=23)
Number of Days	Median	8.4	31.5	13.3
	Range	2-50	3-121	6-85

The second variable, "person hours for conducting," and the third variable, "follow-up person hours for agreement development," tended to indicate that on-site needs assessments required the most investment of person hours (see Table 14). However, the only statistically significant difference was the number of person hours for conducting the on-site strategy when compared to the telephone strategy. On the average, the on-site strategy took significantly more person hours to conduct than the telephone strategy (see Tables 30 and 31 in Appendix A).

Table 14

Person Hours for Conducting
(Includes Project Staffs, Needs Assessors, and TADS staff) AND Persons Hours for Follow-up Agreement Development (only TADS Staff)

Person Hours		On-Site (n=21)	Telephone (n=20)	Self (n=23)
Conducting	M	58.56	37.08	48.65
	SD	20.30	19.40	30.68
Follow-up	M	3.56	2.43	2.99
	SD	2.63	1.68	2.76

Results of Technical Assistance Following Needs Assessment.

The results of the analyses of the four variables comprising this

area indicated there to be no significant differences among the strategies (see Tables 33 to 36 in Appendix A).

When project staff rated their overall satisfaction with each of the technical assistance services provided as a result of the needs assessments, highest ratings were given by staffs who had participated in on-site and telephone assessments (see Table 15).

Table 15

Satisfaction With Individual Technical Assistance Services

Satisfaction Item		Project Staffs Mean Ratings[a]		
		On-Site (n=57)[b]	Telephone (n=49)[b]	Self (n=50)[b]
Your overall satisfaction with this service	M	5.23	5.22	4.98
	SD	.71	.69	.89

[a]Based on a 6 point scale where 1 = unsatisfactory, 3 = average, 5 = excellent, and 6 = exceptional.

[b]These "n" values equal the number of individual evaluation forms returned after each Technical Assistance service.

Those staffs participating in on-site and self-administered assessments indicated the greatest progress in meeting their identified needs (see Table 16). They believed, however, that they were not as far along in meeting their needs before technical assistance as those staffs who participated in telephone assessments. The status of all projects in relation to identified needs at the end of the year was similar for all three types of needs assessments, accounting in part for the smaller degree of progress for those participating in telephone assessments.

Table 16

Progress in Meeting Needs

Status of Need		Project Staffs Mean Ratings[a]		
		On-Site (n=18)	Telephone (n=17)	Self (n=18)
Status Before Technical Assistance	M	2.38	2.63	2.39
	SD	1.07	0.98	1.13
Status at End of Year	M	3.94	3.82	3.86
	SD	1.00	0.97	1.08
Amount of Change In Year	M	1.56	1.19	1.47
	SD	1.11	0.91	1.04

[a]Based on a 5 point scale where 1 = not begun to plan work on this need, 3 = began to implement some of the activities for this need, and 5 = completed desired work on this need.

The highest degree of impact of technical assistance was reported by project staffs participating in on-site assessments (see Table 17). For organizational impacts, this result was followed by the impacts reported by staffs participating in telephone assessments. In relation to programmatic aspects, the on-site results were followed by a slightly higher degree of impact for those who participated in self-administered assessments.

When staffs rated their overall satisfaction with all of the technical assistance they received during the year, i.e., needs assessments, individual TA services, workshops and publications, highest ratings were given by those who participated in on-site assessments followed by those conducted by telephone and then those which were self-administered (see Table 18).

Table 17

Organizational and Programmatic Impacts of All Technical Assistance Services

Impact Area		Project Staffs Ratings of Impacts[a]		
		On-Site (n=16)	Telephone (n=17)	Self (n=17)
Organizational	M	36.25	32.18	27.65
	SD	16.16	15.59	16.98
Programmatic	M	30.06	24.65	25.35
	SD	14.97	13.58	19.31

[a]Based on a 7 point scale (-3 to +3) where -3 = significant negative impact, 0 = no impact, and +3 = significant positive impact. The impact ratings are the mean of the total per project scores for all items for each area (24 items for the organizational area and 26 items for the programmatic area).

Table 18

Overall Satisfaction With All Technical Assistance Services

Satisfaction Item		Project Staffs Ratings[a]		
		On-Site (n=18)	Telephone (n=16)	Self (n=17)
Your satisfaction with this year's TADS technical Assistance	M	2.56	2.44	2.41
	SD	.70	.63	.80

[a]Based on a 7 point scale (-3 to +3) where -3 = extremely dissatisfied, and +3 = extremely satisfied.

SUMMARY OF FINDINGS

The first comparison area, "integrity of the strategies," established that all three strategies did produce a TADS-specific needs assessment. The second area, "perceptions of the participants," occasionally favored the on-site strategy over the telephone strategy, while the perceptions about the self-administered strategy did not substantially differ from either the on-site or telephone strategies. Analysis of the variables associated with the third area, "level of time and effort," indicated some significant differences. The telephone strategy took the longest number of calendar days to complete, self-assessment strategy next, and the on-site took the fewest calendar days to complete. Also, the on-site strategy took significantly more person hours to conduct than did the telephone strategy. The final comparison area, "results of technical assistance following needs assessment," revealed no statistically significant differences among the strategies.

Figure 3 provides a summary of the statistically significant findings related to the 14 variables which defined the four major areas of comparison.

Figure 3

Summary of Findings to Determine the Comparibility of Three Needs Assessment Strategies

Areas of Comparison	Statistical Findings		
	On-Site	Telephone	Self
Area 1 - INTEGRITY OF THE STRATEGIES			
1. Criteria Met: a. Criteria 1-4	------ NO	DIFFERENCE -------	
b. Criteria 5	More than Telephone (PS)[1]	Less Than On-Site (PS)[1]	No Difference
2. Similarity of Needs	------ NO	DIFFERENCE -------	
3. Stability of Needs	------ NO	DIFFERENCE -------	
4. Additional Accomplishments	------ NO	DIFFERENCE -------	
Area 2 - PERCEPTIONS OF THE PARTICIPANTS			
1. Project Staff Satisfaction	------ NO	DIFFERENCE -------	
2. Appropriateness of the Strategy	More Appropriate than Telephone (PS, NA)[1,2]	Less Appropriate than On-Site (PS, NA)[1,2]	No Difference
3. Strengths and Weaknesses	Fewer Weaknesses than Telephone (PS)[1]	More Weaknesses than On-Site (PS)[1]	No Difference
Area 3 - LEVEL OF TIME AND EFFORT			
1. Calendar Days for Conducting	Less than Telephone and Self	More than On-Site and Self	Less than Telephone; More than On-Site
2. Person Hours for Conducting	More than Telephone	Less then On-Site	No Difference
3. Follow-up Person Hours for Agreement Development	------ NO	DIFFERENCE -------	
Area 4 - RESULTS OF TECHNICAL ASSISTANCE FOLLOWING NEEDS ASSESSMENT			
1. Satisfaction with Individual Technical Assistance Services	------ NO	DIFFERENCE -------	
2. Progress in Meeting Needs	------ NO	DIFFERENCE -------	
3. Overall Impacts of Technical Assistance	------ NO	DIFFERENCE -------	
4. Overall Satisfaction with Technical Assistance	------ NO	DIFFERENCE -------	

[1]PS = Project Staff

[2]NA = Needs Assessors

D I S C U S S I O N

A great deal of information has been presented about each of the three strategies and their comparability. This final section of the report will provide a discussion of the findings and an explanation and description of the decisions which were made relative to them.

DISCUSSION OF THE FINDINGS

Integrity of the Strategies. Unlike the results obtained by Clifton (1969), the results of this study indicate that on-site, telephone, and self-administered needs assessments can be used to conduct a specific, in this case, TADS needs assessment. All three strategies met the TADS criteria for needs assessments, produced similar numbers and types of needs, had similar numbers of changes in needs, and produced additional accomolishments. While the number of additional accomplishments was similar, the variety in the types of additional accomplishment comments indicates that supplemental benefits do occur when the level of needs assessor involvement increases.

Perceptions of the Participants. Several findings suggest that telephone assessments were less favorably regarded by their particpants than on-site assessments. Telephone assessments were less often perceived as the most appropriate strategy and more weaknesses were identified for this strategy. In addition to these findings, comments made by the participants provide further information about the unique characteristics of each strategy. Favorable perceptions of the on-site

strategy reflected the benefits of the needs assessor's high involvement, which included the direct benefits to the staff of increased knowledge, understanding, and morale; and the external/objective view of the program provided by the needs assessor. Favorable perceptions of the telephone and self-assessment strategies focused on the efficiency of the process and the capabilities of the project staffs, e.g., their knowledge of the needs assessment process and understanding of their own needs.

These findings suggest that if the telephone needs assessment strategy is going to be used in the future, it needs some modifications to improve the areas which created negative participant opinions in this study. More importantly, the above findings provide some insight into characteristics of the clients which may be best matched with the level of needs assessor involvement. Those projects needing a more in-depth understanding of their program and the role technical assistance may play in their development, and/or needing direct support and assistance for the staff, might best be served by a strategy which has high needs assessor involvement. Needs assessment strategies with no needs assessor involvement might be best matched with projects whose staffs know their own needs and the needs assessment process sufficiently well to conduct an effective assessment.

Level of Time and Effort. Differences were again evident when time and effort variables were considered. By design the on-site assessments were more expensive in terms of costs to the technical assistance agency, TADS, followed by telephone and then self-administered assessments. The results of the study indicated that on-site assessments also required

the greatest amount of effort in terms of person hours expended. On-site assessments, therefore, are the most consuming of personnel and financial resources. In terms of calendar time, however, they are the most efficient. Self-administered assessments are the least costly, take moderate personal effort to complete when compared to on-sites and somewhat more calendar time to complete.

Since one of the primary reasons prompting this evaluation study was to ascertain if less costly needs assessments could be employed, the results in this comparison area could suggest that telephone and self-administered strategies should be used. However, before implementing such a decision, consideration must be given to the factors of total implementation time, amount of personal involvement, and the matching process discussed in the previous section.

Increased calendar days to conduct needs assessments require more time from the technical assistance agency's staff to monitor the process and more importantly, decrease the time that can be allotted to the subsequent technical assistance services to meet the identified needs. For these reasons, caution should be exercised in choosing a strategy, in this case telephone assessments, which requires substantial lengths of time to complete.

A belief that guides the assistance provided by TADS is that personal involvement in technical assistance is necessary to bring about change. This personal involvement is particularly true for needs assessments since the needs identified during the assessments will often require a commitment to change by the entire project staff. The decreased person hours for conducting the telephone needs assessments

provide some evidence for less personal involvement and, therefore, should not necessarily be considered a favorable outcome.

Results of Technical Assistance Following Needs Assessments. While the results reported in this comparison area tended to favor on-site assessments, none of the differences was statistically significant. Therefore, it may be concluded that the type of needs assessment strategy employed (on-site, telephone, or self) does not appear to affect the subsequent satisfaction with individual services, progress in meeting needs, impacts of technical assistance or satisfaction with all technical assistance.

THE DECISIONS MADE

Two decisions were made by the TADS staff based on the results of this evaluation study. The first decision was to use both the on-site and self-administered strategies to conduct future TADS needs assessments. In general, the results indicated that the telephone strategy was comparable and it was not eliminated for this reason. Rather, the telephone strategy was eliminated because of the more negative opinions about it, and the logistical problems experienced (e.g., more calendar days to complete). This made the telephone strategy less desirable than the less expensive and more favorably perceived self-administered strategy.

The second decision was to conduct on-site assessments with all first year projects and those second and third year projects who, in their own opinions and those of TADS, would most benefit from high needs assessor involvement. The remainder of the projects would conduct self-administered needs assessments. There were several reasons for making

this decision. Since projects in their first year of funding will have had no previous experience with TADS services and needs assessments procedures, it was believed that they would benefit more from the on-site strategy. The benefit is that a needs assessor, on-site, could explain the role technical assistance can play in the development of their project and provide an in-depth experience in and explanations of the TADS needs assessment procedures. An on-site needs assessment during the first year would, therefore, provide a better opportunity for the project to: (1) effectively understand and use TADS services and (2) participate in the less costly self-assessment strategy in subsequent years. The on-site strategy would only be conducted with second and third year projects when the staff believed there to be a need for an assessor to be on-site and/or when major changes in the project occur which would affect the staff's capability to conduct the assessment, e.g., key leadership changes, etc. Self-administered assessments, therefore, would be conducted by the leadership and staffs of second and third year projects who know the TADS needs assessment process and can, in their opinion and that of the TADS staff, effectively identify their own needs and benefit from a self assessment of their program.

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Appendix A

Statistical Analyses

APPENDIX A

STATISTICAL ANALYSIS

This appendix contains the statistical analyses described in the text. As stated previously, the purpose of the study was to determine if the three strategies were comparable, i.e., that there were not differences among the strategies in relation to the variables that were assessed. Statistical techniques were chosen which would determine if there was a statistical difference among the strategies.

Choice of techniques was based on the level and type of the data that were collected. One-way analysis of variance was used when the data were of at least an "interval" level, e.g., Likert-type items, number of person hours, number of needs, etc. Chi-Square analysis for independent samples was used when the results were at a "nominal" level and produced frequencies of, for example, "yes" and "no" responses, e.g., additional accomplishments, appropriateness, strengths and weaknesses, etc. In one instance, number of calendar days, the data were at an "interval" level but were so scattered that a mean, or average, would have been an inappropriate measure of central tendency. In this case, medians and ranges were calculated and the appropriate statistical test for this type of data, the Kruskal-Wallis One Way Analysis of Variance Test (Siegel, 1956), was conducted.

When a statistically significant difference among the three strategies was found, additional comparison tests were conducted to determine where the differences occurred. When an analysis of variance was conducted and found to be significant, the follow-up test used was the Scheffé Multiple Comparison

Test. When a Chi-square analysis was significant, additional chi-squares were computed comparing two strategies at a time. For the Kruskal-Wallis, the follow-up test used was the Median test.

The level of significance chosen to indicate that there was a significant difference for all analyses was set at $p \leq .05$.

On the following pages are tables presenting the results of the statistical analyses in the order that the data are presented in the text and where available, i.e., those conducted by computer, the specific p level. Asterisks denote those differences that were significant.

Table 19

Analyses of Variance: Extent to which Criteria Were Met

Source of Variation	df	MS	F	p
PROJECT STAFF RATINGS				
Comprehensive Review				
Type of Needs Assessment	2	1.44	2.12	.1303
Error	52	.68		
Project Needs Identified				
Type of Needs Assessment	2	.81	1.90	.1593
Error	53	.43		
Technical Assistance Needs Identified				
Type of Needs Assessment	2	.94	2.23	.1180
Error	52	.42		
Technical Assistance Activities Identified				
Type of Needs Assessment	2	.58	.91	.4084
Error	52	.64		
Roles/Responsibilities Determined				
Type of Needs Assessment	2	1.46	3.46	.0389*
Error	51	.42		
NEEDS ASSESSOR RATINGS				
Comprehensive Review				
Type of Needs Assessment	1	2.70	2.11	.1557
Error	33	1.28		
Project Needs Identified				
Type of Needs Assessment	1	.48	.50	.4835
Error	32	.96		
Technical Assistance Needs Identified				
Type of Needs Assessment	1	.07	.02	.8830
Error	34	.78		
Technical Assistance Activities Identified				
Type of Needs Assessment	1	.43	.45	.5091
Error	34	.96		
Roles/Responsibilities Determined				
Type of Needs Assessment	1	.43	.67	.4186
Error	34	.64		

*$p < .05$

Table 20

Scheffé Multiple Comparison Test: Project Staff Ratings of Extent to Which Roles/Responsibilities Were Determined During the Needs Assessment for On-Site (μ_1), Telephone (μ_2) and Self-Administered (μ_3) Strategies

Contrast	$\hat{\psi}$	$\hat{\sigma}_{\hat{\psi}}$	$\hat{\psi}/\hat{\sigma}_{\hat{\psi}}$
1. $\mu_1 - \mu_2$	.58	.21	2.82*
2. $\mu_1 - \mu_3$	.20	.20	.99
3. $\mu_3 - \mu_2$	.38	.21	1.83

*$F(2,50)p = .05 = 2.76$

Table 21

Analysis of Variance: Number of Needs Identified

Source of Variation	df	MS	F	p
Type of Needs Assessment	2	.37	.21	.8150
Error	55	1.80		

Table 22

Chi-Square: Number of Needs Which Changed

Area of Comparison	df	x^2	p
Needs that Changed	2	1.861	<.50

Table 23

Chi-Square: Additional Accomplishments of the Needs Assessment

Respondent	df	x^2	p
Project Staff	2	1.098	.5775
Needs Assessors	1	.286	.5926

Table 24

Analysis of Variance: Project Staff Satisfaction with Needs Assessment

Source of Variation	df	MS	F	p
Expectations Met				
Type of Needs Assessment	2	.44	.85	.4320
Error	52	.52		
Usefulness				
Type of Needs Assessment	2	1.63	2.76	.0726
Error	53	.59		
Quality				
Type of Needs Assessment	2	1.94	3.17	.0503
Error	51	.61		
Overall Satisfaction				
Type of Needs Assessment	2	1.41	2.00	.1458
Error	51	.71		

Table 25

Chi-Square: Persons Indicating that the Strategy in Which They Participated Was Appropriate

Respondent	df	x^2	p
Project Staff			
OS vs T vs S[a]	2	8.94	.0117*
OS vs T	1	8.91	.0028*
T vs S	1	1.99	.1582
S vs OS	1	3.02	.0822
Needs Assessors			
OS vs T	1	12.94	.0003*

[a]OS = on-site; T = telephone, S = self
*$p < .05$

Table 26

Chi-Square: Strengths of Strategies

Respondent	df	x^2	p
Project Staff	2	.798	.6711
Needs Assessors	1	1.178	.2777

Table 27

Chi-Square: Weaknesses of Strategies

Respondent	df	χ^2	p
Project Staff			
OS vs T vs S[a]	2	6.69	.0353*
OS vs T	1	6.62	.0101*
T vs S	1	2.44	.1183
S vs OS	1	1.39	.2391
Needs Assessors			
OS vs T	1	2.06	.1517

[a]OS = on-site; T = telephone; S = self
*p<.05

Table 28

Kruskal-Wallis: Calendar Days Taken to Conduct the Needs Assessments

Area of Comparison	df	H	p
Calendar Time	2	212.35	<.001*

*p<.05

Table 29

Median Tests: Comparison of the Strategies by the Calendar Time Taken to Complete the Needs Assessment

Comparison	df	x^2	p
OS vs T[a]	1	17.26	<.001*
T vs S	1	6.26	<.02*
OS vs S	1	7.47	<.01*

[a]OS = on-site, T = telephone, S = self

*p<.05

Table 30

Analysis of Variance: Person Hours to Conduct the Needs Assessment

Source of Variation	df	MS	F	p
Type of Needs Assessment	2	2116.34	3.61	.0337*
Error	55	586.46		

*p<.05

Table 31

Scheffé Multiple Comparison Test: Amount of Time Taken to Conduct an On-Site (μ_1), Telephone (μ_2), and Self-Administered (μ_3) Assessment

Contrast	$\hat{\psi}$	$\hat{\sigma}_{\hat{\psi}}$	$\hat{\psi}/\hat{\sigma}_{\hat{\psi}}$
1. $\mu_1 - \mu_2$	21.48	7.566	2.8391*
2. $\mu_1 - \mu_3$	9.91	7.309	1.3557
3. $\mu_3 - \mu_2$	11.57	7.405	1.5624

*$F(3,60)p = .05 = 2.76$

Table 32

Analysis of Variance: Person Hours for Follow-up Agreement Development

Source of Variation	df	MS	F	p
Type of Needs Assessment	2	6.60	1.02	.3663
Error	54	6.45		

Table 33

Analysis of Variance: Satisfaction with Individual Technical Assistance Services

Source of Variation	df	MS	F	p
Type of Needs Assessment	2	.97	1.85	.1608
Error	147	.52		

Table 34

Analysis of Variance: Progress in Meeting Needs

Source of Variation	df	MS	F	p
Type of Needs Assessment	2	1.51	1.51	.2259
Error	123	1.01		

Table 35

Analysis of Variance: Impacts of
All Technical Assistance Services

Source of Variation	df	MS	F	p
Organizational Impacts				
Type of Needs Assessment	2	343.03	1.24	.2999
Error	41	276.51		
Programmatic Impacts				
Type of Needs Assessment	2	216.35	.75	.4807
Error	41	290.15		

Table 36

Analysis of Variance: Overall Satisfaction
With All Technical Assistance Services

Source of Variation	df	MS	F	p
Type of Needs Assessment	2	.08	.14	.8667
Error	42	.53		

Appendix B

Additional Findings

Appendix B

ADDITIONAL FINDINGS

INTRODUCTION

As the study was being conducted, additional questions and findings emerged. They were not as directly related to the overall question of the comparability of the three strategies as those presented in the text, but shed some additional light on aspects of the assessments. Areas in which additional findings were explored included: (a) project staff satisfaction; (b) project staff perceptions of their needs; and (c) impacts of technical assistance which were particular targets or goals of the needs assessments. A description and discussion of these findings are given here.

PROJECT STAFF SATISFACTION

Client's perceptions of satisfaction are an important factor in the success of technical assistance (Lillie and Black, 1976). TADS' previous evaluation data on providing technical assistance indicate that satisfaction varies by year of project operation and that it changes over time (Suarez & Vandiviere, 1978; 1979; 1980). For these reasons additional analyses were conducted of project staff satisfaction with: (a) the needs assessment; (b) the individual technical assistance services provided as a result of the needs assessment; and (c) all of the technical assistance provided during the year, i.e., workshops, the needs assessments, individual TA and publications. Analyses were conducted to determine if satisfaction ratings differed by type of needs assessment in which the project staff

participated, year of project funding and/or if there was an interaction between the two. For satisfaction with the needs assessments and overall satisfaction, there were small numbers of projects represented in some of the categories. These results should therefore be considered tentative.

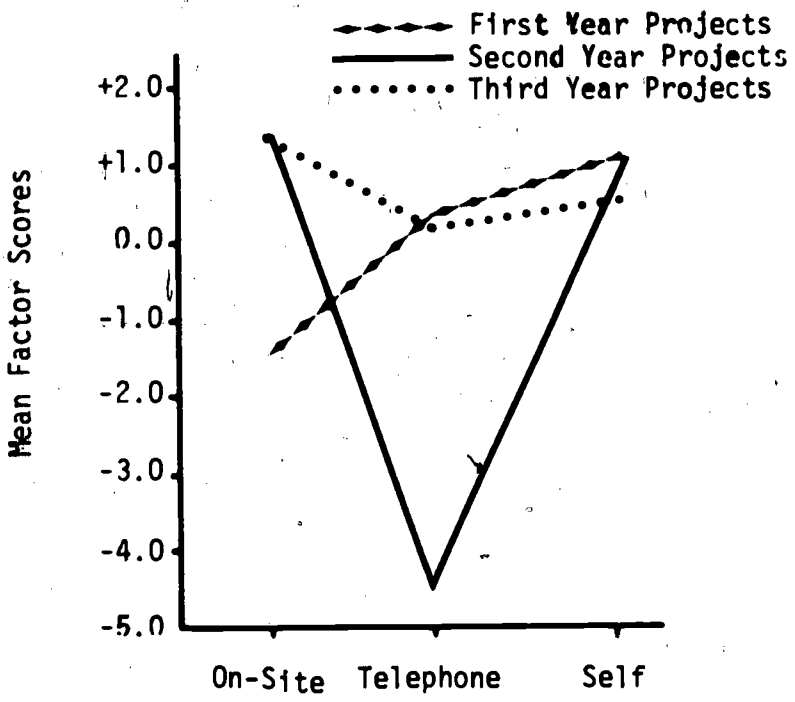
Satisfaction with the Needs Assessment. As mentioned in the body of this report, satisfaction with the needs assessment was defined as project staff ratings of four items: (a) the extent to which expectations were met by the needs assessment; (b) the usefulness of the needs assessment, (c) its quality, and (d) overall satisfaction. Previous analyses conducted at TADS of these types of data suggested that the items might be highly related to one another. For this reason a principal components factor analysis was conducted to see if the items were measures of the same characteristic or factor. The results indicated that the items did indeed represent one factor--one which was given the overall title of "client satisfaction" (see Statistical Table 39).

Using the results of the factor analysis, the responses from each project to the four items were converted to a one factor score representing client satisfaction with the needs assessments. (It is because of this analysis that some of the resulting means were negative numbers, e.g., Figure 4.) To determine if there were differences in client satisfaction among the needs assessment strategies or among years of funding, an unbalanced two-factor analysis of variance was conducted using the factor scores as the dependent variable. Results of the analysis revealed a significant interaction between type of needs assessment and year of funding (see Statistical Table 40).

As Figure 1 illustrates, there were noticeable differences in satisfaction ratings among the staffs in different years of funding who participated in on-site and telephone needs assessments. First year project staffs were less satisfied with on-site needs assessments than were second or third year projects. First and third year project staffs were considerably more satisfied with telephone needs assessments than were second year projects.

Figure 4

Mean Factor Scores of Project Staff Satisfaction with the Needs Assessments by Type of Needs Assessment and Year of Funding



Satisfaction with Individual Technical Assistance Services. Satisfaction with TA services was reported by the clients after each service by rating the item, "your overall satisfaction with the service," on a six point scale (1 = unsatisfactory and 6 = exceptional). Clients participating in the on-site and telephone needs assessment tended to rate their satisfaction with individual services ($\underline{M}$ = 5.23 and $\underline{M}$ = 5.22, respectively) slightly higher than those

clients participating in the self-administered needs assessment (M = 4.98). As was reported in the text, these differences were not statistically significant. Additional analyses indicated there to be a statistically significant difference in satisfaction with TA services for projects in different years of funding, but the interaction between type of needs assessment and year of funding was not statistically significant (see Statistical Table 41). Satisfaction with TA services increased as the year of funding increased (i.e., first year projects, M = 4.88; second year projects, M = 5.02; and thrid year projects, M = 5.49). These differences in satisfaction with individual TA services are consistent with the findings in previous years (Suarez & Vandiviere, 1978; 1979; 1980).

Overall Satisfaction with All Technical Assistance. Satisfaction with all technical assistance was reported by the projects at the end of the year by rating the item, "your satisfaction with this years TADS technical assistance," on a seven point scale (-3 to +3; -3 = extremely dissatisfied and +3 = extremely satisfied). The trend for projects' ratings of satisfaction at the end of the year with all technical assistance was similar to the findings for satisfaction with individual TA services (i.e., projects participating in on-site needs assessments, M = 2.50; telephone, M = 2.43; and self-administered, M = 2.41). The trend by year of funding was also similar (i.e., first year, M = 2.37; second year, M = 2.47; and third year, M = 2.55). Even though both of these trends were similar to the finding for satisfaction with individual TA services, additional analyses indicated there were NO statistically significant differences by type of needs or year of funding, and there was NO significant interaction between year of funding and type of needs assessment (see Statistical Table 42).

PROJECT STAFF PERCEPTIONS OF THEIR NEEDS

Data was gathered to investigate one aspect of project staff perceptions of their needs. That one aspect was the project staff's ratings of the status of the identified needs before and after receiving individualized assistance with each need. As reported in the text, the differences in these status ratings also provided a measure of "progress in meeting needs" of the projects. Additional data were collected and additional analyses conducted that were not reported in the text. The results of these additional analyses provided some insight into the projects perceptions of their needs.

The status of the identified needs before technical assistance, was collected twice during the year. The first time was immediately after the needs assessments and before the individualized assistance to address the need was provided (this was the additional data not reported in the text). This status rating was labeled "Time 1 Initial Status" (see Table 37). The second time was a retrospective rating of the initial status which was collected at the end of the year. This second status rating was labeled "Time 2 Initial Status." The status of the identified needs after receiving individualized assistance was gathered once, at the end of the year. This status rating was labeled "Final Status."

There was considerable variations between the initial status at "Time 1" and "Time 2" (see Table 37). The project staff's perception of the initial status at "Time 2" was higher than at "Time 1" for all groups, except those groups of projects who were in their first year of funding and participated in the self-administered needs assessment. In fact, even when those first year projects who participated in the self-administered needs assessments were included, the difference in the overall means for

the status ratings at "Time 1" and "Time 2" was highly statistically significant ("Time 1," $\underline{M}$ = 1.79; "Time 2," $\underline{M}$ = 2.22; correlated $\underline{t}$ = 3.39, $\underline{df}$ = 147; $\underline{p}$ = .001).

Table 37

Project Staff's Perceptions of the Status of Identified Needs[a]

Time of Rating and Year of Funding			Status Rating by Type of Needs Assessment[b]		
			On-Site	Telephone	Self
	Number of Projects		n=21	n=20	n=23
	Percentage of Projects Completing Ratings		90%	80%	61%
TIME 1 INITIAL STATUS					
	Year 1 Projects	M	1.44	1.83	1.72
		SD	.88	.96	.79
		(n)[c]	(9)	(19)	(11)
	Year 2 Projects	M	1.48	1.80	2.19
		SD	.77	.84	1.03
		(n)[c]	(23)	(5)	(21)
	Year 3 Projects	M	2.29	2.19	2.71
		SD	1.05	.87	.49
		(n)[c]	(17)	(21)	(7)
TIME 2 INITIAL STATUS					
	Year 1 Projects	M	2.40	2.44	1.54
		SD	.91	1.15	.69
		(n)[c]	(15)	(18)	(11)
	Year 2 Projects	M	2.05	2.62	2.37
		SD	1.02	.92	.83
		(n)[c]	(21)	(8)	(19)
	Year 3 Projects	M	2.81	2.82	3.57
		SD	1.17	.81	1.27
		(n)[c]	(16)	(17)	(7)
FINAL STATUS					
	Year 1 Projects	M	3.47	3.56	3.45
		SD	.74	.86	1.37
		(n)[c]	(15)	(18)	(11)
	Year 2 Projects	M	3.57	3.75	3.79
		SD	1.03	1.16	.92
		(n)[c]	(21)	(8)	(19)
	Year 3 Projects	M	4.88	4.11	4.67
		SD	.34	.96	.52
		(n)[c]	(16)	(17)	(6)

[a]Caution should be used in reviewing these results because of the unequal return rates.

[b]Base on a 5 point scale where 1 = Have not begun to plan, 2 = Have conceptualized or planned, 3 = Have begun to implement, 4 = Have implemented most, and 5 = Have completed all desired work.

[c](n) = The number of needs for which projects in this group provided Status Ratings.

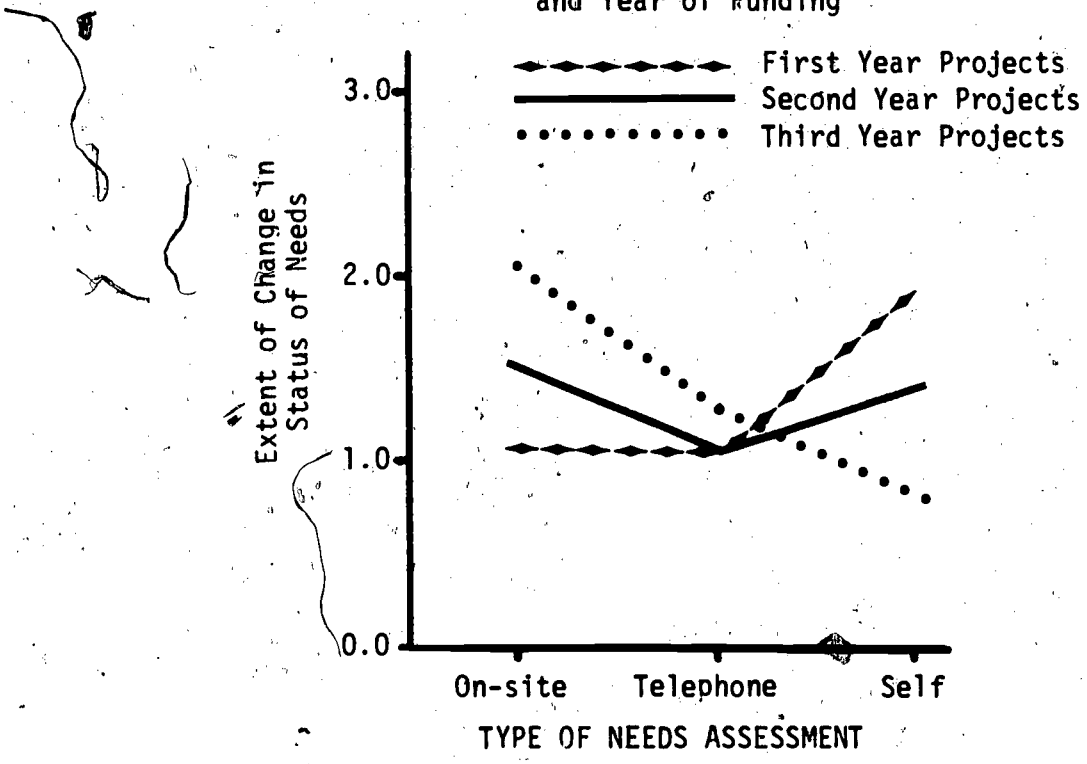
Of particular interest were the ratings of first year project staffs. The greatest difference in initial status ratings was given by first year project staffs who participated in an on-site needs assessment ("Time 1" - "Time 2" = .96). These projects rated their initial status ("Time 1") lower than any other group. At the end of the year they perceived their initial status ("Time 2") much higher and comparable with the ratings of other first and second year project staffs. For those first year staffs who participated in a self-administered assessment, a very different phenomenon occurred. They rated their initial status after the needs assessment ("Time 1") higher than at the end of the year ("Time 2")--the only group to do so. While the difference between "Time 1" and "Time 2" ratings (.86) of third year staffs participating in self assessments was not as high as first year staff in on-site assessments, it was a large difference. In addition, both initial status ratings were higher for this group than for any of the others.

Additional analyses were conducted to investigate differences between initial status and final status by year of funding, and to investigate interaction effects between year of funding and type of needs assessment (this was labeled "progress in meeting needs" in the text). The "Time 2" status ratings were used as the initial status during these analyses (also in the text) because these ratings were most often higher than "Time 1" ratings and, therefore, provided a more conservative view of the differences between initial and final status. (Also, initial status of needs in previous years was only collected at "Time 2.") While the differences between initial and final status by year of funding were

not statistically significant, the interaction between the type of needs assessment and year of project funding was statistically significant (see Statistical Table 43). Figure 5 provides a graphic representation of this interaction effect. As may be noted, third year projects who participated in the on-site assessment reported the largest change between initial and final status. The smallest extent of change was for third year projects who participated in the self-administered assessment. Results for first year projects participating in on-site and self-administered assessments were the reverse of those found for third year projects. These findings, while interesting, appear to be a result of the differences in ratings given to the initial status ("Time 2") rather than the final status. Differences among average ratings of change in status for all second year projects and all projects participating in the telephone strategy were not great.

Figure 5

MEAN CHANGE by Type of Needs Assessment and Year of Funding



TARGETED IMPACTS OF TECHNICAL ASSISTANCE

Needs assessments, in and of themselves, are considered by TADS to be an important technical assistance service to clients. Because it involves a total program review, the assessment is believed to be a service which aids in the future organization and operation of the client's project. The process should, therefore, result in certain organizational impacts of technical assistance on the projects. In relation to the organizational impacts assessed at the end of the year, it was determined by TADS that the needs assessment should produce impacts in the specific areas of: (a) decision-making; (b) program analysis; (c) staff role and responsibility definition; and (d) program clarification. An additional set of analyses was conducted to determine whether or not this occurred and the extent to which there were any differences in these areas when the type of needs assessment in which clients participated was considered.

To obtain information regarding the extent of the targeted impacts, a count of the positive impact ratings (there were no negative impacts indicated by any project) was done (see Table 38). A large majority of the projects reported positive impacts in three of the four target areas, and the number of impacts were approximately equal for projects participating in the different needs assessment strategies. The one target area which did not have as many reported positive impacts was "staff roles." This item was described as "identifying and/or clarifying staff roles and responsibilities." Less than half of the projects participating in the self-administered assessments reported positive impacts. Slightly

Table 38

Frequencies, Means and Standard Deviations
of Project Staff Ragins of Targeted Organizational Impacts

Area of Comparison		Type of Needs Assessment		
		On-Site (n=15)	Telephone (n=17)	Self (n=17)
NUMBER OF PROJECTS INDICATING AN IMPACT				
Decision Making		14	14	15
Program Analysis		14	17	15
Staff Roles		12	9	5
Program Clarification		13	16	15
LEVEL OF IMPACT RATINGS				
Decision-Making	M	2.33[a]	1.71	1.59
	SD	.90	1.05	.94
Program Analysis	M	2.33	2.41	2.00
	SD	.82	.71	1.06
Staff Roles	M	1.47	.88	.65
	SD	1.13	1.05	1.11
Program Clarification	M	2.07	2.00	1.71
	SD	1.10	.87	.99

[a]Based on a 7 point scale (-3 to +3) where -3 = significant negative impact, -2 = moderate negative impact, -1 = limited negative impact, 0 = no impact, +1 = limited positive impact, +2 = moderate positive impact, and +3 = significant positive impact. No negative ratings were given by respondents. The means, therefore, reflect averages on a 4 point scale, i.e., 0-3.

more than half the projects participating in the on-site and telephone assessments reported positive impacts in the "staff roles" area.

Means and standard deviation were computed to determine the overall level or intensity of the targeted impacts. The general pattern of the means in Table 38 indicates that projects participating in the on-site assessments reported the highest level of impact followed by the telephon-assessment, and then self-administered assessments. An exception to this

pattern may be noted in the "program analysis" area. In this area, the highest level of impact was reported by projects participating in the telephone assessment. To determine if these differences were statistically significant, one-way analyses of variance were computed for each target area. No statistically significant differences were found (see Statistical Table 44).

SUMMARY

It has been the purpose of this discussion to provide additional information related to the needs assessments. In general, it appeared that the results described three tentative and initial findings. First, client satisfaction with technical assistance appears to change over time. The most specific differences in client satisfaction and among project staffs in different years of funding were observed prior to the provision of technical assistance to meet identified needs. Differences in client satisfaction with subsequent TA shifted during the year as services were provided and were found to be only among projects in different years of funding. At the end of the year, differences in client satisfaction with TA were no longer evident.

Secondly, project staff perceptions of their needs, in relation to their status, also appears to change over time. Retrospective perceptions of initial status ("Time 2") tended to be rated higher than the initial status ("Time 1") reported immediately after needs assessments.

Finally, in three of four areas targeted specifically for the needs assessment, desired impacts were reported by most of the projects. Impacts relative to staff role clarification varied in the same manner as the extent of involvement of a trained consultant during the needs assessment,

i.e., the greatest impact in this area was for projects participating in assessments which had higher needs assessor involvment, the on-site assessment. This result cannot be entirely attributed to the type of needs assessment because these impact ratings were reported at the end of the year after all technical assistance services. However, this result did support other findings in the text which describe the benefits to project staffs from direct, personal assistance.

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Statistical Tables

Table 39

Factor Analysis: Satisfaction Items

Items	Weight on Factor
Expectations Met	.87
Usefulness	.87
Quality	.91
Satisfaction	.95
Eigenvalue	3.24
Percent of Variance Explained	81%

Table 40

Analysis of Variance: Satisfaction with Needs Assessment (Factor Scores)

Source of Variation	df	MS	F	p
Type of Needs Assessment	2	21.22	2.47	.0944
Year of Funding	2	10.68	1.25	.2966
Interaction	4	26.63	3.10	.0233*
Error	50	8.58		

*$p < .05$

Table 41

Analysis of Variance: Satisfaction with Individual Technical Assistance Services

Source of Variation	df	MS	F	p
Type of Needs Assessment	2	.97	1.85	.1608
Year of Funding	2	5.58	10.66	.0001*
Interaction	4	.37	.76	.5524
Error	147	.52		

*$p < .05$

Table 42

Analysis of Variance: Satisfaction with all Technical Assistance Services

Source of Variation	df	MS	F	p
Type of Needs Assessment	2	.08	.14	.8667
Year of Funding	2	.18	.34	.7150
Interaction	4	.45	.84	.5073
Error	42	.53		

Table 43

Analysis of Variance: Progress in Meeting Needs

Source of Variation	df	MS	F	p
Type of Needs Assessment	2	1.52	1.51	.2259
Year of Funding	2	.02	.02	.9800
Interaction	4	2.62	2.79	.0292*
Error	123	1.01		

*$p < .05$

Table 44

Analysis of Variance: Targeted Organizational Impacts

Source of Variation	df	MS	F	p
Decision Making				
Type of Needs Assessment	2	2.51	2.69	.0788
Error	46	.93		
Program Analysis				
Type of Needs Assessment	2	.80	1.04	.3600
Error	46	.77		
Staff Role Clarification				
Type of Needs Assessment	2	2.79	2.33	.1091
Error	46	1.20		
Program Clarification				
Type of Needs Assessment	2	.60	.63	.5391
Error	46	.97		