A study involving a simple random sample of 180 county-level administrators employed by the U.S. Cooperative Extension Service assessed the effects of client and administrator involvement as stakeholders in evaluation. A posttest-only control group design was used. Variables included level of administrator involvement as stakeholders and level of client involvement as stakeholders. Each subject was assigned to one of nine treatment groups, reflecting nine permutations of a simulated evaluation report. The instrument was administered via the mail. Three mailings of the questionnaire booklet and follow-up postcards resulted in a final response rate of 94%. Results indicate that: (1) involvement of administrators had no direct effect on administrators' readiness for evaluation utilization; (2) perceptions of technical adequacy, increased stakeholder participation, and the perceived quality of the report were substantially related to utilization readiness; (3) attitude toward evaluation and readiness for evaluation utilization were significantly related; (4) the relationship between attitude toward evaluation and training in evaluation was negligible; and (5) a significant portion of the variance in readiness for utilization was explained by the variables in the generated model. Two flowcharts and one bar graph are included. (TJH)
EFFECTS OF PERCEIVED INVOLVEMENT OF STAKEHOLDERS ON READINESS FOR UTILIZATION OF PROGRAM EVALUATION RESULTS BY COUNTY ADMINISTRATORS IN THE U.S. COOPERATIVE EXTENSION SERVICE

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Introduction

Evaluation theorists and practitioners of program evaluation have been grappling for years with the concept of utilization of evaluation results. What constitutes utilization? What factors are involved in the utilization of evaluation results for decision making regarding program improvement? How can these factors be investigated? How can these factors be optimized? Stakeholder participation in the evaluation process has emerged as an important factor, and has been addressed by theorists and practitioners in the recent literature (Alkin, 1985; Ayers, 1987; Greene, 1987 and 1988; Patton, 1988; Smith, 1988; Weiss, 1983). Gold (1983) defined stakeholders as people whose lives are affected by the program and people whose decisions can affect the future of the program. Meaningful participation has been defined as shared decision making, wherein stakeholders are considered to be active "collaborators in inquiry" (Stake, 1983:18).

Greene (1988) reported several case studies that investigated the link between stakeholder participation in the evaluation process and evaluation utilization. In her words, "Data from these studies provide support for the value and viability of stakeholder participation in evaluation as one route to increased utilization of evaluation findings" (p.100). She documented both enhanced 'readiness for utilization' on the part of decision makers and actual use of evaluation results (instrumental, conceptual and symbolic use). "Readiness for utilization" (Greene, 1988) is a construct which deals with the contributions of the participatory evaluation process to results utilization. The construct includes 1) perceptions of the validity and credibility of results, 2) understanding of results, 3) acceptance of results and 4) sense of responsibility to follow through on the results. These variables appear to be directly related to those addressed by the Utility Standards (Joint Committee on Standards, 1981). It is suggested that as the values of each of these four variables increase, the chances for subsequent utilization (however it is defined) improve. In addition, a variety of human, context and evaluation factors (Alkin, 1985) are expected to be related to readiness for utilization--these include a users' pre-existing attitude toward evaluation and several variables related to the users' perceptions of the report, such as perceived quality of the evaluation report and perceived technical adequacy of the evaluation.

While an overview of the literature on utilization of evaluation suggested that evaluation results in education are seldom used, little or nothing is known about utilization within the U.S. Cooperative Extension Service (CES) in particular. The CES provides a wide variety of educational programs in agriculture, home economics, natural resources and community development for adults and youth in the United States. Evaluation of individual programs at the county level is undertaken largely with the aim of improving programs in the future. A recent ECOP report (Futures Task Force, 1987:14) points out, however, that "no mechanism exists to facilitate the use of evaluation results in making decisions, reaching conclusions or forming judgments about the effectiveness of Extension programming". Yet county administrators (e.g. county directors, county chairpersons) in the Cooperative Extension Service are key decision makers as the intended users
of a variety of program evaluation results. Their participation as stakeholders and/or their perceptions regarding the participation of clients and program staff as stakeholders may have a direct effect on the utilization of those evaluation results.

The purpose of the study

The problem addressed by this study involves stakeholder involvement in the evaluation process and whether perceived involvement is related to county administrators' readiness for utilization of evaluation results in the context of the U.S. Cooperative Extension Service.

The major research question of this study can be stated: How do two factors known to vary in U.S. CES program evaluations (level of involvement of clients as stakeholders and level of involvement of administrators as stakeholders) relate to county level decision makers' readiness for utilization of the evaluation results? A model of readiness for results utilization developed for this study (Figure 1) illustrates the expected relationships among the variables under investigation. The various geometric shapes represent individual variables or sets of variables and arrows indicate expected significant correlations. Stakeholder involvement in CES evaluations is one factor that could be optimized if more were known about the relationship between stakeholder involvement and readiness for utilization of results by county administrators.

The ultimate aims of the study were to provide empirical research results that may contribute to the development of a general model of utilization of evaluation results, and to determine whether involvement of stakeholders plays a key role in the readiness for utilization of evaluation results in the U.S. CES. Readiness for utilization has been stated to represent "the core contribution of the participatory evaluation process to subsequent results utilization" (Greene, 1988). The findings will aid the evaluation profession as a whole, as well as evaluation personnel in CES to better understand the concepts involved in readiness for utilization, and will serve as a guide for evaluation practitioners who seek to improve the utilization of program evaluation results. Recommendations were developed for three groups known to be concerned with the utilization of evaluation—evaluation practitioners, extension educators and evaluation researchers.

Objectives of the study

* To determine the effects of varying a) level of involvement of administrators as stakeholders (ADMIN) and b) level of involvement of clients as stakeholders (CLIENT) within a simulated evaluation report upon administrators' readiness for utilization (UTIL) of the evaluation results.

* To investigate reported and/or hypothesized relationships among readiness for utilization of results and the following factors in order to confirm/disconfirm these as they apply to utilization of evaluation results in the CES.
   a. Administrator attitude toward evaluation (ATT)
Readiness for Utilization

Figure 1: A Model of the Factors Influencing Administrators' Readiness for Utilization of Program Evaluation Results in the U.S. CES.

- **CLIENT**: Level of client involvement as stakeholders
- **ADMIN**: Level of administrator involvement as stakeholders
- **STAKE**: Set of variables related to perceptions of the report: technical adequacy (TECH), quality (QUAL) and adequacy of stakeholder participation (STAKE)
- **EXP**: Administrator experience
- **EVAL**: Training in evaluation
- **USE**: Previous use of evaluation results
- **ATT**: Attitude toward evaluation
- **UTIL**: Ultimate dependent variable: administrator's readiness for utilization

Diagram notes:
- Open circles represent manipulated variables.
- Solid circles represent set of variables related to perceptions of the report.
- Diamond represents antecedent variables.
- Square represents ultimate dependent variable.
b. Administrator training in evaluation methods (EVAL)
c. Professional experience as administrator (EXP)
d. Previous use of evaluation results (USE)
e. Perceived technical adequacy of the evaluation (TECH)
f. Perceived quality of the evaluation report (QUAL)
g. Perceived adequacy of stakeholder participation (STAKE)

* To determine the relative importance of the manipulated variables (ADMIN, CLIENT) and measured variables (ATT, STAKE, QUAL, TECH) in accounting for the variance in readiness for utilization of results (UTIL).

Methodology

The target population was county level administrators in the 3050 counties served by the U.S. Cooperative Extension Service. The sample used for the study was a simple random sample of 180 CES county administrators, a sufficient number for the power of the test to be 0.90 when alpha was set at 0.10. The 1989-90 (71st Edition) County Agents, a reference directory for extension workers was used as the frame for the study.

This experimental study was conducted using a research design known as the posttest-only control group design. Specifically, a two-way factorial design with two manipulated, fixed, crossed independent variables was used. Each of the manipulated variables (level of administrator involvement as stakeholders and level of client involvement as stakeholders), had three levels resulting in nine permutations of a simulated evaluation report. The 180 county CES administrators were randomly assigned to one of the 9 treatment groups.

The threats to internal validity of the study are reduced by the research design. In addition, the measurement of a variety of potential intervening variables (antecedent variables and variables related to perceptions of the report) allowed the researcher to use these as covariates in the analysis and 'provide an increase in the power of the significance test very similar to that provided by a pre-test' (Campbell and Stanley, 1963;26).

Threats to external validity include the possible interaction of personological variables and treatment effects, and reactive effects, such as the Hawthorne effect (Campbell and Stanley, 1963:8; Bracht & Glass, 1968). The threat of interaction was reduced by the measurement of a variety of personological variables, allowing the researcher to investigate possible interactions with the treatment. The threat of reactive effects, which appear when participants change their behavior in response to their perception of being involved in an experiment, was reduced by the fact that the participants were left uninformed as to which of the independent variables in the report were manipulated and which were controlled. The possibility of non-response error was reduced by repeated follow-ups by mail.
The treatments were a series of vignettes representing a model program evaluation report for an agricultural extension program. The reports were five pages in length and identical except for references to stakeholder involvement (the manipulated variables).

The first manipulated independent variable was a construct of factors including evaluator's willingness to involve administrators as users, evaluator's choice of role and amount/quality of information dialogue during the evaluation. The construct was labelled "involvement of administrator as a stakeholder", was considered ordinal and was identified as ADMIN. This variable had three levels; not involved, moderately involved and highly involved.

The second manipulated independent variable was the construct representing "level of involvement of clients as stakeholders". This variable was considered ordinal and was identified as CLIENT. This variable had three levels; not involved, moderately involved and highly involved.

Construct validity for the treatments was assessed by a panel of experts. The point-biserial correlations between intended level of the treatment and the panelists' rankings were 0.91 for client involvement (CLIENT) and 0.83 for administrator involvement (ADMIN).

Additional variables were either measured for each individual in the study (Experience as an administrator--EXP, training in evaluation--EVAL, previous use of evaluation results--USE, pre-existing attitude toward evaluation--ATT, perceived adequacy of stakeholder involvement--STAKE, perceived technical adequacy of the evaluation--TECH, perceived quality of the report--QUAL and readiness for utilization--MIL) or controlled in the experiment.

Construct validity for attitude toward evaluation and for readiness for utilization was assessed using two groups of OSU graduate students enrolled in an agricultural education research methods course. Correlations (r phi) between the intended orientation (positive versus negative) and the measured scores on the Likert-type scales were determined to be 0.95 for the attitude scale (ATT) and 0.92 for the readiness for utilization scale (UTIL).

Data collection

The instrument of measurement was provided to the participants as a mail questionnaire. The questionnaire was designed as a 5.5 by 8.5 inch booklet which included instructions on how to complete the questionnaire items after reading the evaluation vignette. Three mailings of the booklet and follow-up postcards resulted in a final response rate of 94 percent. No further follow-up was made.
Data analysis

Descriptive statistics were generated and presented for the personal characteristics of CES administrators. All the analyses (ANOVA, MLR/C) were performed using the Statistical Package for Social Science (SPSS/PC+).

The data were assessed in order to detect any violations of the assumptions of multivariate normal distributions of the independent variables and absence of multicollinearity. Residuals were assessed for independence, absence of correlation with the independent variables, homoscedasticity and normal distribution. A series of regression equations were then generated, using a hierarchical model, in order to attempt to explain the variance in readiness for utilization of results (UTIL).

Findings and Discussion

The respondents scored a mean of 2.92 (of a possible 4.00) with a standard deviation of 0.29 on the attitude scale (ATT). Respondents reported a mean of 9.45 years of experience as county directors in the U.S. CES (EXP). Experience ranged from as little as one year up to 32 years, with a standard deviation of 7.65 years. The mean number of evaluation courses, inservice training programs and/or workshops (EVAL) taken in the past by the respondents was eight (standard deviation=8.4). Regarding the previous use of evaluation results (USE), respondents rated themselves a mean of 3.53 (sd=0.93) on a scale of 1 to 5 where 1=never and 5=frequently. Seventy nine administrators responded to an open-ended question regarding the past use of evaluation results. The most common uses were for planning (revising, improving) future programs, including making changes in content, delivery methods, time offered and location. Only two of the respondents mentioned the use of evaluation results to gain financial support for continued programming.

Analysis of variance showed that there were no significant differences between groups in ATT, EXP, EVAL or USE. These findings (the lack of differences related to antecedent variables) support the use of random selection and random assignment as the best means for obtaining the nine equivalent treatment groups used in the experiment.

Regarding Objective 1, the level of administrator involvement as stakeholders (ADMIN) had no significant effect on readiness for utilization of the results (UTIL). The level of client involvement as stakeholders (CLIENT) had a significant non-linear effect on UTIL. When administrators were not involved in the evaluation process, the quadratic function explained a significant amount (9.1 percent) of the variance in UTIL.

Although the effects of CLIENT were statistically significant at alpha=0.10, only a small portion of the variance in the dependent variable was explained, reducing the practical significance of the findings. Only when administrators were not involved as stakeholders did the involvement of clients as stakeholders have any practical significance. When administrators were not involved in the evaluation, a moderate level of client involvement as stakeholders was related to perceptions of increased technical adequacy (TECH), increased adequacy of stakeholder participation
(STAKE) and to higher readiness for utilization (UTIL) scores. The highest level of client involvement appeared to be somewhat less effective, perhaps due to raised expectations of administrators regarding TECH, QUAL (perceived quality of the report) and STAKE.

Figure 2 summarizes the findings related to the hypothesized relationships for the study (Objective 2)—the thickness of the arrows in the model represent the strength of the relationships between the variables. ADMIN had only negligible correlations with the report variables TECH, QUAL and STAKE as well as a negligible relationship with readiness for utilization (UTIL). CLIENT and CLIENT squared had low positive correlations with STAKE and UTIL and low negative correlations with TECH and QUAL. Overall, the correlations between the manipulated variables and the dependent variables were lower than expected. Alternative treatments used for evaluation research could allow administrators to play more active roles in simulated evaluations. For example, by using the telephone, a researcher could inform the administrator of an ongoing evaluation, ask for input or about concerns during the process. This strategy might produce a 'stronger' treatment than did sending a written treatment after the fact and expecting the administrator to role play involvement in the evaluation retroactively.

Experience (EXP) had a low positive relationship with evaluation training (EVAL), while EVAL had a low positive correlation with previous use of evaluation results (USE), but a negligible relationship with attitude toward evaluation (ATT). The lack of any significant relationship between EVAL and ATT was of particular interest, since inservice education in evaluation had been considered as a possible route to improved attitude toward evaluation. Previous use of evaluation results (USE) had a moderate positive relationship with ATT, so perhaps EVAL has its effect on ATT through USE.

Attitude (ATT) had a low positive relationship with readiness for utilization (UTIL) while STAKE, TECH and QUAL all had substantial positive relationships with UTIL. The relationships between CLIENT and TECH, CLIENT and UTIL, and ATT and UTIL were statistically significant only when administrators are not involved as stakeholders in the evaluation.

Objective 3 concerned the relative importance of the variables in the model in accounting for the variance in readiness for utilization. Overall, using hierarchical entry of independent variables into the regression model, CLIENT, CLIENT squared, ATT, STAKE, QUAL and TECH accounted for 51.4 percent of the variance in readiness for utilization. When administrators were not involved in the evaluation only 40.1 percent of the variance in UTIL could be accounted for by these variables, however, ATT alone accounted for more of the variance (for an increment of 16.5 percent).

When administrators were moderately involved in the evaluation 61.1 percent of the variance in UTIL was accounted for by these variables, ATT was less important and STAKE played a larger role in accounting for the variance. When administrators were highly involved in the evaluation, ATT did not contribute significantly, while STAKE, TECH and QUAL together accounted for almost 68.0 percent of the variance in readiness for
Figure 2: Strength of the Correlations among the Factors Influencing Administrators' Readiness for Utilization of Program Evaluation Results in the U.S. CES.

- **Manipulated variables:** level of client involvement as stakeholders (CLIENT), level of administrator involvement as stakeholders (ADMIN)
- **Set of variables related to perceptions of the report:** technical adequacy (TECH), quality (QUAL) and adequacy of stakeholder participation (STAKE)
- **Antecedent variables:** administrator experience (EXP), training in evaluation (EVAL), previous use of evaluation results (USE) and attitude toward evaluation (ATT)
- **Ultimate dependent variable:** administrator's readiness for utilization (UTIL)

Legend:
- Substantial (r=50-69)
- Moderate (r=30-49)
- Low (r=10-29)
- Negligible (r<0.09)
utilization (Figure 3a). In general, as the involvement of administrators as stakeholders increased, pre-existing attitude toward evaluation had less influence, and perceptions of the adequacy of stakeholder participation, quality of the report and technical adequacy of the evaluation had more influence on administrators' readiness for utilization of the evaluation results. Only when administrators were not involved in the evaluation did the involvement of clients as stakeholders have any practical significance (CLIENT and CLIENT squared accounted for 9.1 percent of the variance in UTIL).

Similarly, when clients were not involved as stakeholders, ATT accounted for an 11.6 percent of the variance in UTIL, while when clients were moderately or highly involved, the contribution of ATT dropped to 5.2 percent and 3.2 percent respectively (Figure 3b). In general, whenever administrators and/or clients are not involved as stakeholders in the evaluation, the pre-existing attitude of the administrator toward evaluation played a more important role in his/her readiness for utilization of the results, whereas when stakeholders were involved, STAKE played a more important role in accounting for the variance in UTIL.

Conclusions

Addressing each of the objectives in turn, the following conclusions were drawn.

* ADMIN had no direct effect on administrators' readiness for utilization (UTIL). The involvement of clients (CLIENT) in the evaluation process had the greatest effect on administrators' readiness for utilization of the results when administrators were not involved personally. A moderate level of client involvement as stakeholders appeared to be optimum.

* Most of the relationships predicted by the model (Figure 1) were determined to be lower than expected. The manipulated variables, in particular, had negligible or low correlations with the dependent variables STAKE, TECH, QUL, and UTIL. Possible explanations were a) the simulated conditions for the experiment were not strong enough for the respondents to fully understand the nature of the treatments, b) the simulated conditions were too unnatural for the participants to respond as they would have responded to a 'real' evaluation report, c) stakeholder involvement cannot be simulated since process rather than outcome is the key aspect of participation or d) the level of stakeholder involvement actually has little or no effect on perceptions of the report, perceived adequacy of stakeholder involvement or readiness for utilization.

STAKE, TECH and QUL were all substantially related to UTIL, leaving open the question of what could have affected the respondents' perceptions of these report variables if ADMIN and CLIENT were not major influences. One conclusion is that an important antecedent variable (possibly: previous experience with the evaluation process?) was missing from the study.

The relationship between ATT and UTIL was statistically significant (moderate) only when administrators were not involved in the evaluation.
Figure 3a,b: Explanation of the Variance in Readiness for Utilization (UTIL) by Selected Variables

**Refers to the contribution of appropriate manipulated variables for each case**
This leads to the conclusion that administrators must be involved as stakeholders if evaluators are concerned with overcoming (possibly negative) pre-existing attitudes toward evaluation.

An unexpected finding was that the expected relationship between EVAL and ATT was determined to be negligible. Possible explanations include a) evaluation training has no direct relationship with the attitude of the trainee, but acts through practical experience with evaluation or b) the type of evaluation training provided by CES may be geared more to cognitive than to affective processes. This leads to the conclusion that training programs that focus on affective aspects of evaluation need to be offered to extension personnel. Attitudes may be positively affected if in-service training were designed with the following objectives: to increase desire to use evaluation as a program development tool, and to increase understanding as to the usefulness of evaluation.

* A significant portion of the variance in readiness for utilization was explained by the variables in the model. Overall, 51.4 percent was accounted for by the linear combination of CLIENT, CLIENT squared, ATT, STAKE, QUAL and TECH. The relative importance of the contribution of the variables, however, was related to the level of administrator involvement as stakeholders. An interaction of sorts was found, since the relative importance of CLIENT and ATT decreased, while the relative importance of STAKE increased as the level of ADMIN increased (Figure 3a,b). The conclusion is that the merits of the report will have more weight if administrators are included in the evaluation process. If administrators are excluded, the involvement of clients can have a small positive effect on UTIL, but the contribution of ATT increases greatly, leading to possible problems with poor pre-existing attitudes toward evaluation.

**Recommendations**

The first set of recommendations were developed for practitioners of evaluation:

* Both administrators and clients should be included as stakeholders in the evaluation process in order to maximize the chance that the administrator receiving the report will react to qualities of the report itself rather than depending on his/her pre-existing attitude toward evaluation.

* Administrators should be involved at the highest level possible within their time constraints. As the level of administrator involvement increases, the influence of pre-existing attitude on readiness for utilization of the results decreases.

* Clients should be involved at a moderate level, especially if administrators are not involved as stakeholders. Inclusion of clients at the highest level can lead to decreased readiness for utilization due to increased expectations on the part of administrators. If clients are included at the highest level, evaluators must be willing to take extra care in reporting on the role of the stakeholders in the evaluation process.
The second group of recommendations were developed for extension educators who specialize in evaluation:

* Evaluation education programs (e.g. in-service training programs, workshops) offered to CES personnel should be redesigned to focus more on the 'why to do' as opposed to the 'how to do' evaluation. Greater emphasis on the affective realm of evaluation may lead to improved attitudes toward evaluation. Attitude was shown in this study to be positively related to readiness for utilization of evaluation results.

* Evaluation education programs offered to CES personnel should include a) information regarding the purpose and benefits of meaningful involvement of stakeholders and b) information regarding how best to include stakeholders in the evaluation process. The complex nature of stakeholder approaches requires careful training and practice for expected benefits to result.

The final set of recommendations were developed for researchers in the field of evaluation:

* Although the report variables (STAKE, QUAL, TECH) were shown to explain much of the variance in readiness for utilization in this study, the variances in STAKE, TECH and QUAL were not explained by the manipulated variables ADMIN and CLIENT, despite the experimental nature of the study. A question that should be addressed by further research is: What are other possible variable(s) that might contribute to explaining the variance in these report variables?

* Although a respectable portion of the variance in readiness for utilization was explained in the study, nearly one third of the variance remains unexplained. Future research should attempt to unveil additional variables of interest. One possibility arising from this study is the variable 'previous experience with the evaluation process'.

* Investigation of the role of the involvement of stakeholders in the evaluation process may be too complex to simulate as was attempted in this study. Future research in this area should use more natural conditions for controlled studies, perhaps by involving administrators more actively by using role playing as opposed to written treatments.
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