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## Development of Instrument to Assess Influence of Extension Conference on Intended Outcomes

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# Development of Instrument to Assess Influence of Extension Conference on Intended Outcomes

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**Abstract.** The Annual Conference for Mississippi State University Extension is the sole event at which the majority of Extension personnel gather for networking, organizational updates, recognition of efforts, and professional development. Extension leaders plan this conference with intended outcomes but without ever evaluating those outcomes beyond attendee satisfaction. We developed an evaluation instrument to determine how certain conference events influence participants' critical psychological states and ultimately, their perceived motivation, professional enrichment, opportunities for networking, professional accountability, and organizational awareness. Rather than simply assessing attendee satisfaction, this instrument may help inform planning for successive Extension conferences and other professional development events.

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## INTRODUCTION

The professional development needs of Extension personnel are evolving rapidly along with the context of Extension (Cummings et al., 2015). Owing to the “link between individual performance and organizational performance” (Stone & Bieber, 1997, para. 5), professional development is important to the continued success of Cooperative Extension (Leuci, 2012). Evaluation can be a critical tool to ensure the effectiveness and efficiency of existing educational practice and the best use of resources (Duttweiler, 2008). Intentional and strategic evaluation may also determine if the outcomes of such endeavors align with their intended purpose (Neves et al., 2012).

Traditionally, the Annual Conference for Mississippi State University (MSU) Extension is the sole event at which the majority of Extension personnel gather for networking, organizational updates, recognition of efforts, and professional development, according to MSU Extension Director Dr. G. Jackson (personal communication, January 18, 2019). In recent years, budget restrictions led organizers to shorten this event and eliminate professional development opportunities. However, with “lower participation” from some groups of Extension personnel, there may be a need for “format rejuvenation” (G. Jackson, personal communication, January 18, 2019). We proposed an internal evaluation to help determine the perceived value of the annual conference to Extension personnel, relative to specific aspects of employees' critical psychological states: satisfaction, motivation, accountability, and awareness (Hackman & Oldham, 1975).

The purpose of this study was to develop and pilot test an evaluation instrument to better understand the relationship between the planned events and intended outcomes of Annual Conference as determined by Extension administrators. The data collected from this evaluation will serve to inform Extension administration of needed changes to Annual Conference in order to increase participation and tailor it to meet the changing needs and desires of Extension personnel. The study's objective was to develop an evaluation instrument to determine the relationship between the MSU Extension Annual Conference and attendees' experienced meaningfulness of work (i.e., job satisfaction and job motivation), responsibility for outcomes (i.e., professional accountability), and knowledge of results (i.e., organizational awareness). This article describes the methodology for developing and pilot testing the instrument and discusses the potential application of the conceptual framework as well as the instrument itself in other Extension organizations.

## METHODS

We used Likert's (1967) organizational behavior model as the framework from which to build this evaluation instrument. Likert posited that causal variables, such as leadership behaviors and policies, influence the internal state of an organization, also known as intervening variables. These intervening variables represent the current state of an organization, “reflected in such functions as communication, decision-making, motivation, and related human processes”

(Kruse, 1986, p.10). End-result variables, such as productivity and turnover, are influenced by both intervening and causal variables. “Likert theorized that leaders who attempt organization improvement by concentrating directly on intervening or end-result variables would achieve fewer results. Rather, leaders should direct organizational improvement efforts toward causal variables” (Kruse, 1986, pp.10-11).

For the purpose of this study, we classified the planned conference events and their associated leadership activities as causal variables. These leadership activities were derived from Kruse’s (1986) adaptation of Yukl’s (1989) taxonomy of supervisory leadership behaviors. We used Hackman and Oldman’s (1975) Job Characteristics Model to identify the intervening variables as employees’ three critical psychological states: experienced meaningfulness of the work, experienced responsibility for outcomes of the work, and knowledge of the actual results of the work activities. Finally, we classified the end-result variables as the desired outcomes of the conference identified by the MSU Extension Director. A graphic representation of the conceptual framework and the authors’ alignment of conference events with leadership activities and intended outcomes are provided in Figure 1 and Table 1, respectively.

The evaluation instrument was developed in Qualtrics (Qualtrics.com) and included demographic questions, gen-

eral satisfaction questions, and questions about the conference activities relative to the six leadership activities derived from Kruse (1986). The satisfaction questions included a ranked option, 4-point Likert scales, and open-ended questions. The questions pertaining to the six leadership activities used a forced-choice, Likert 4-point scale. We elected to exclude a *neutral* or *no opinion* option on the scale because research indicates that “respondents do not always interpret and use a midpoint in the way that scale developers intended. Respondents might select a mid-point even if their true opinion is not neutral” (Chyung et al., 2017, p. 17). An additional concern is that “respondents may use a midpoint as a *dumping ground* when they are responding to survey items that are unfamiliar to them, or items that are ambiguous or socially undesirable” (Chyung et al., 2017, p. 17).

Two state Extension specialists in program and staff development and evaluation and an Assistant Professor in the Agricultural Education, Leadership, and Communications program at MSU reviewed the instrument for face and content validity. The instrument was disseminated electronically via Qualtrics to all attendees (N=356) to Annual Conference in 2018 as a pilot test. Additional, open-ended questions asking for feedback on the appropriateness of the questions, as well as the readability or understandability of the statements, were included to inform modifications to the

| <b>Causal Variables</b><br><b>(Leadership Activities)</b> | <b>Intervening Variables</b><br><b>(Critical Psychological States)</b> | <b>End-Result Variables</b><br><b>(Intended Outcomes)</b> |
|---|--|---|
| Motivating task   | Experienced  | Motivation  |
| commitment  | meaningfulness of the  | Enrichment  |
| Interfacing   | work   | Networking  |
| Informing   | Experienced  | Professional  |
| Planning & organizing                                     | responsibility for   | accountability  |
|   | outcomes of the work   |   |
| Harmonizing &   | Knowledge of the   | Organizational  |
| teambuilding  | actual results of the  | awareness   |
| Recognizing &   | work activities  | Networking  |
| rewarding   |  |   |

Figure 1. Conceptual framework for developing evaluation instrument.

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**Table 1.** Alignment of Conference Events, Leadership Activities, and Intended Outcomes

| Leadership Constructs (as defined by Kruse, 1986, p. 20)  | Associated Conference Events   | Intended Outcomes (MSU Ext Director, personal communication, Jan. 18, 2019) |
|---|--|---|
| Motivating task commitment— <i>using personal influence to generate enthusiasm for the work, commitment to task objectives, and compliance with orders and requests.</i>  | Guest speakers<br>Extension Director’s address<br>Awards luncheon                                      | Motivation<br>Enrichment  |
| Interfacing— <i>developing contacts and interacting with Program leaders and others to gather information, improve coordination, and discover how the area and county can better adapt to a changing environment.</i> | Guest speakers<br>Professional association meetings<br>Extension Director’s address<br>Awards luncheon | Motivation<br>Networking<br>Enrichment<br>Professional accountability       |
| Informing— <i>disseminating relevant information to staff and informing them about decisions, plans, and events that affect their work.</i>   | Professional association meetings<br>Extension Director’s address                                      | Organizational awareness<br>Professional accountability<br>Motivation       |
| Planning & organizing— <i>determining county/area program objectives and strategies and determining how to use personnel and resources efficiently to accomplish objectives.</i>                                      | Professional association meetings  | Professional accountability<br>Organizational awareness                     |
| Harmonizing & teambuilding— <i>developing teamwork, cooperation, and identification among county and area staff, and facilitating the constrictive resolution of conflicts and disagreements.</i>                     | Professional association meetings<br>Awards luncheon   | Motivation<br>Networking  |
| Recognizing & rewarding— <i>praising effective performance by staff, showing appreciation for special contributions and achievements, and rewarding effective performance with tangible benefits.</i>                 | Extension Director’s address<br>Awards luncheon  | Motivation<br>Networking  |

final instrument. Cronbach’s Alpha was calculated for internal consistency and reliability of each of the leadership constructs (causal variables), and they all had a score of  $\alpha = .80$  or higher. Mean and standard deviation were determined for descriptive statistics.

## RESULTS

One hundred thirty-four of the 356 email recipients responded, for a response rate of 38%. From the population sample, respondents self-identified as having programmatic responsibilities in 4-H youth development (77.2%), community resource development (62%), agriculture (45.6%), family and consumer sciences (41.8%), and natural resources and Sea Grant (31.6%). The average respondent had 12 years of work experience, and most (77.5%) did not have any prior positions in Cooperative Extension.

### Guiding Question 1: What is the relationship between Extension Annual Conference at MSU and Extension employees’ experienced meaningfulness of work (Motivating and Interfacing causal variables)?

Respondents were asked to identify if the professional association meetings and each of the presenters at annual confer-

ence each made them more excited to be a part of Extension (Table 2). Respondents generally agreed (where 1=Strongly Agree and 4=Strongly Disagree) that these events contributed to their overall motivation relative to the organization, with the exception of the awards luncheon and the motivational guest speaker. However, when asked if the conference overall was effective at generating enthusiasm for respondents’ work, the average response was 2.31 (where 1=Not Effective at all and 4=Very Effective). Likewise, respondents averaged 2.38 when asked if the conference was effective at increasing their commitment to job tasks.

Respondents were asked to identify if certain events were a valuable part of their annual conference experience (Table 3) and if that event should be included in future conferences. Similar to motivation, respondents agreed or strongly agreed that these events were valuable to them. With the exception of ESP, all of the professional association meetings had at least 95% of respondents strongly agree or agree to continue these meetings in the future. Respondents felt that the overall conference was somewhat effective at helping them develop peer contacts (M=2.47) or interact with program leaders (M=2.40) to gather information, improve coordination, and discover how their county or area could better adapt to a changing environment.

**Table 2.** Perceived Effect of Conference Events on Attendees' Motivation (1=Strongly Agree and 4=Strongly Disagree)

| Event                        | Mean | Median | Mode | n*  |
|------------------------------|------|--------|------|-----|
| Awards luncheon              | 2.39 | 2      | 2    | 109 |
| 4-H Association Meeting      | 2.00 | 2      | 2    | 18  |
| AG Association Meeting       | 2.15 | 2      | 2    | 40  |
| FCS Association Meeting      | 2.06 | 2      | 2    | 18  |
| ESP Association Meeting      | 2.25 | 2      | 2    | 8   |
| Motivational guest speaker   | 2.36 | 2      | 2    | 97  |
| Information guest speaker    | 2.18 | 2      | 2    | 99  |
| Extension Director's Address | 1.91 | 2      | 2    | 103 |

\*Not all attendees participated in every event.

**Table 3.** Perceived Value (Enrichment) of Conference Events (1=Strongly Agree and 4=Strongly Disagree)

| Event                   | Mean | Median | Mode | n*  |
|-------------------------|------|--------|------|-----|
| Awards luncheon         | 2.1  | 2      | 2    | 109 |
| 4-H Association Meeting | 1.82 | 2      | 2    | 18  |
| Ag Association Meeting  | 1.82 | 2      | 2    | 40  |
| FCS Association Meeting | 1.63 | 2      | 2    | 18  |
| ESP Association Meeting | 2.14 | 2      | 2    | 8   |

\*Not all attendees participated in every event.

**Guiding Question 2: What is the relationship between Extension Annual Conference at MSU and Extension employees' responsibility for outcomes (Informing and Planning causal variables)?**

Respondents agreed that the information presented by each of the guest speakers was relevant ( $M=1.86$ , where 1 = Strongly Agree and 4 = Strongly Disagree) and useful ( $M=1.91$ ). The conference overall, however, was only somewhat effective (where 1=Not At All Effective and 4=Very Effective) at helping participants determine county or area program objectives and strategies ( $M=2.17$ ), determine how to use resources to accomplish program objectives ( $M=2.20$ ), receive relevant information pertaining to their jobs (2.50), or learn about decisions, plans, and events that affect their work ( $M=2.58$ ).

**Guiding Question 3: What is the relationship between Extension Annual Conference at MSU and Extension employees' knowledge of results (Harmonizing and Recognizing causal variables)?**

Respondents were asked to rate the effectiveness (where 1=Not At All Effective and 4=Very Effective) of certain events at enabling them to meet new people who would be helpful to them on the job (Table 4). Respondent felt that the conference was somewhat effective at developing team-

work, cooperation, and identification among county and area staff ( $M=2.19$ ). They felt it was effective at praising effective performance by staff, showing appreciation for special contributions and achievements, and rewarding effective performance with tangible benefits ( $M=2.60$ ).

## CONCLUSIONS

Professional development events are imperative to an organization like Extension, and utilizing evaluation of such events to inform the most warranted professional and organizational development needs each year can make the activities planned and the time spent attending more worthwhile moving forward. Extension Annual Conference, like any other professional development event, is intended to provide relevant, useful, encouraging, and efficient support and information to its professionals (G. Jackson, personal communication, January 18, 2019), and we developed this study to create and pilot test an evaluation instrument to determine if that is happening. The evaluation addressed the lack of research in internal evaluation data and the call for "modifications to the existing format" of the MSU Extension Annual Conference because of "less participation" (G. Jackson, personal communication, January 18, 2019). Developing such an instrument

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**Table 4.** Perceived Effect of Conference Events on Attendees' Opportunities for Networking (1=Not At All Effective and 4=Very Effective)

| Event                   | Mean | Median | Mode | n*  |
|-------------------------|------|--------|------|-----|
| Awards luncheon         | 2.35 | 2      | 2    | 109 |
| 4-H Association Meeting | 2.18 | 2      | 3    | 18  |
| Ag Association Meeting  | 2.10 | 2      | 2    | 40  |
| FCS Association Meeting | 2.41 | 2      | 2    | 18  |
| ESP Association Meeting | 2.50 | 2      | 3    | 8   |

\*Not all attendees participated in every event.

is also supported by the literature, which demonstrates how evaluation studies have influenced Extension practice by informing program direction, resource allocation decisions, and organizational support (Duttweiler, 2008).

Our pilot test revealed a moderate influence of certain constructs in the annual conference format on employees' perceptions of the meaningfulness of their work, and there was little evidence of a strong influence on the other critical psychological states (experienced responsibility for outcomes and knowledge of the actual results). This could be due to several factors that would require further investigation beyond the scope of this study. Nevertheless, these results can help guide future conversations and planning meetings to better tailor events, such as an annual conference, to achieve better outcomes. Additionally, the conceptual framework presented here can be used by other Extension systems in an effort to better understand the influence of their workforce development efforts on employees' psychological states and resulting outcomes such as motivation, professional accountability, and networking, and the instrument can be modified to fit any other institution's annual conference agenda.

Correspondence concerning this article or requests to view the full instrument should be addressed to Marina Denny, Email: mdd269@msstate.edu.

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