Programmatic Environmental Scans: A Survey Based on Program Planning and Evaluation Concepts

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Within Extension, environmental scans are most commonly used to assess community or organizational issues or for strategic planning purposes. However, Extension has expanded the use of environmental scans to systematically identify "what programs exist" on a given topic or focus area. Yet, despite recent attention to the topic of environmental scanning in Extension, survey instruments used to conduct environmental scans have not been published. Given the emphasis on implementation of evidence-based practices and programs, having a ready-made survey that can be used to identify programs on a specific topic and that could subsequently lead to an evaluability assessment of those programs would be a useful resource. To encourage the use of environmental scans to identify existing evidence-based programs, this article describes a survey instrument developed for the purpose of scanning for 4-H Healthy Living programs ready for rigorous outcome evaluation and/or national replication. It focuses on the rationale for survey items, as well as provides a summary and definition of those items. The survey tool can be easily adapted for future programmatic environmental scans both within and outside Extension.

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Introduction

Environmental scanning has been described as "a continuing process of identifying, studying, and analyzing the current and emerging forces that exist within the economic, social, cultural, political, and technological external environment" of an organization (Boone, Safrit, & Jones, 2002, p. 112). It is "…a kind of radar to scan the world systematically and signal the new, the unexpected, the major and the minor" (Brown & Weiner, 1985, p. ix). Environmental scans are commonly used in the business and marketing sectors to retrieve information and data for organizational decision-making. Cooperative Extension (Extension) has adopted this technique as a process for determining issues and needs that Extension should address. Scanning the environment is a first step in the Extension Program Development Model (Franz & Townson, 2008). However, while the terms environmental scanning, situational analysis, and needs assessment are often used interchangeably in Extension, they are actually different, but related, processes (Garst & McCawley, 2015), with environmental scanning encompassing the others.

Within Extension, environmental scans are most commonly used to assess community or organizational issues or for strategic planning purposes. For example, to examine rural leaders' perceptions of health and well-being in their communities, Extension educators utilized a face-to-face key informant interview survey process with leaders who would have distinct viewpoints on health (Morton, 2002). This environmental scan provided Extension staff with a better understanding of community perceptions about health and the local health system infrastructure, as well as provided information to assist in the development of educational programs and public policies. Liles and Mustian (2004) conducted an environmental scan as the first step in a process for identifying, validating, and developing core competencies for Extension educators that could be used to build a competency-based training and organizational development system. The National Institute of Food and Agriculture's (NIFA) Institute of Food Safety and Nutrition funded an environmental scan of Expanded Food and Nutrition Education Program (EFNEP) and Supplemental Nutrition Assistance Program Education (SNAP-Ed) coordinators across the nation to document organizational and program leadership structures, and strengths and needs for aligning the programs for better visibility within the Land-Grant University and Cooperative Extension Systems (Schneider, 2014).

Extension has expanded the use of environmental scans to systematically identify "what programs exist" on a given topic or focus area. For example, Gerdes, Durden, Mincemoyer, and Lodl (2013) conducted a national environmental scan to identify professional development programs provided through Extension for 4-H and other youth-serving professionals and volunteers working in child care and other before- and after-school settings. Environmental scans are designed to help plan for future program development, implementation, or adaptation. Scans provide evidence about the existence or lack of existence of programs that meet the needs of a target audience. Thus, an environmental scan can be considered as an "internal assessment" of the programmatic landscape of Extension.

Despite recent attention to the topic of environmental scanning in Extension, survey instruments used to conduct environmental scans have not been published. Therefore, Extension professionals may be at a loss when trying to develop an environmental scan survey. Given the emphasis on implementing evidence-based practices and programs, having a ready-made survey that can be used to identify programs on a specific topic and that could subsequently lead to an evaluability assessment of those programs would be a useful resource. In an effort to encourage the use of environmental scans to identify existing evidence-based programs, this article describes a survey instrument developed for the purpose of scanning for 4-H Healthy Living programs ready for rigorous outcome evaluation and/or national replication. The article focuses on the rationale for survey items, as well as offers a summary and definition of those items. A copy of the complete survey, including response options, is available upon request from the primary author to provide a tool that can be easily adapted for future programmatic environmental scans both within and outside Extension.

National 4-H Healthy Living Program Environmental Scan and Evaluability Assessment

In 2013, Evaluation Specialists with Mississippi State University (MSU) Extension collaborated with National 4-H Council and 4-H National Headquarters/United States Department of Agriculture on a two-phase project. Phase one included an environmental scan of 4-H Healthy Living programs that met pre-determined standards of quality. The identified programs were considered for further study in a subsequent evaluability assessment. During the second phase, the evaluability of programs identified in phase one was assessed. The purpose of this two-phase project was to identify programs that were ready for comprehensive outcome evaluation and/or replication at a national level. Programs in five 4-H Healthy Living domains were considered: healthy eating; physical activity; alcohol, tobacco, and other drug use prevention; injury prevention; and social-emotional health and well-being.

The five-step process described by Albright (2004) was followed in completing the environmental scan:

1. Identify the environmental scanning needs of the organization;
2. Gather the information;
3. Analyze the environment;
4. Communicate the results; and
5. Make informed decisions.

A mixed-methods approach was used to conduct the environmental scan that included an online survey, interviews, and document review. As mentioned, this article focuses on the online survey because it was the foundation of all other data collection efforts.

Environmental Scan Survey

The environmental scan began with development of the environmental scan survey. The environmental scan survey included a series of items based on common elements of program planning and evaluation (See Table 1). This allowed for documentation of logical connections among program goals/objectives, activities, and evaluation. The intent of the survey was to collect programmatic information to enable Evaluation Specialists to assess each respective program's theory of change.

Table 1. Program Information Collected Through Environmental Scan Survey

Item	Description
Program Name	Full name of the program
4-H Healthy Living Domain	4-H Healthy Living Domain directly addressed by the program (i.e., healthy eating; physical activity; injury prevention; social and emotional health and well-being; and alcohol, tobacco, and other drug use prevention)
Program Objectives	Specific changes sought in the priority population as a result of exposure to the program
Curricula Used	Identification of specific educational resources used during implementation of the program
Evidence-Based	Program used practices, programs, or curricula identified as effective in achieving the goals
Theory-Based	Program targets key factors that influence health behaviors and health behavior change
Program Adaptation	Whether the program was modified from a pre-existing program
Program Activities	Major activities carried out to achieve desired outcomes
Desired Outcomes	Intended changes as a result of the program
Evaluation Methods	Approach used to assess changes as a result of the program
Evaluation Results	Changes observed as a result of the program
Program Resources	Any resource used during implementation in addition to educational curricula
Professional Development Opportunities	Methods used to ensure the staff and volunteers are trained to implement the program effectively
Target Audience	Priority population/s served by the program
Number of Individuals Served	Number of individuals reached through the program
Delivery Methods	Methods and settings used to implement the program
Initial Implementation	Year the program was initially implemented
Number of Times Implemented	Number of times the program had been implemented at the time of survey completion
Geographic Areas Served	Geographic areas served by the program
Website	Program's website URL (if available)
Program Contact	Contact information for a primary representative of the program

A theory of change that identifies all components required to achieve a long-term goal can help in the program development and evaluation process (The Center for Theory of Change, Inc., 2013). Developing a theory of change can be done by delineating a series of "if-then"

relationships. In working out the "if-then" sequences, gaps in logic can be identified, assumptions can be clarified, and an understanding of how investments and activities are likely to lead to desired outcomes is enhanced. This information can then be used to develop a logic model that serves as a visual representation of the relationships between activities and outcomes.

Creating a theory of change involves 6 steps (The Center for Theory of Change, Inc., 2013):

1. Identifying long-term goals,
2. "Backwards mapping" or connecting the requirements necessary to achieve the goals,
3. Identifying assumptions about the context,
4. Identifying activities and/or interventions to create the desired change,
5. Developing indicators to measure outcomes, and
6. Documenting the logic of the program.

Survey Procedure

Survey procedures were based on Dillman's (2007) Tailored Design Method. The Qualtrics online survey system was used to administer the survey. 4-H Healthy Living Liaisons (members of a national network for disseminating information about 4-H Healthy Living opportunities and resources) and State 4-H Program Leaders (individuals who oversee 4-H programming in their respective state and/or Land-Grant institutions) were invited to complete the survey or asked to forward the survey link to someone who could address the required items. Up to 15 programs could be reported in one submission. Information that participants would be asked to provide was included with the email invitation. Given the amount of detail requested in the survey, such advance notice enabled participants to gather needed documents for completing the survey ahead of time, thus expediting the process and increasing the likelihood that the survey items would be adequately answered. See Downey, Peterson, Le Menestrel, Leatherman, and Lang (2015) for details of the full, mixed-methods environmental scan and evaluability assessment process. All research procedures were reviewed and approved by Mississippi State University's Institutional Review Board for the Protection of Human Subjects in Research prior to implementation.

Final Environmental Scan Database

After the online survey closed and any additional information was collected through follow-up interviews and/or document reviews, a final environmental scan database was created to identify those submitted programs that adhered to the National 4-H Healthy Living Mission and Logic Models for each of the five domains. Programs that met the following criteria were included in the final database and thus moved forward to the evaluability assessment phase:

- Target 4-H youth, ages 9-19;
- Youth development program with an organized, purposeful set of activities designed to achieve positive youth development outcomes;
- Activities congruent with 4-H Healthy Living mission as presented in the domain-specific logic models; and
- Developed and implemented by Cooperative Extension faculty and staff.

MSU Extension Evaluation Specialists conducted an evaluability assessment of programs in the final environmental scan database to determine which programs most clearly aligned with the related 4-H Healthy Living Logic Models and were programmatically sound. An evaluability assessment determines whether an evaluation should be conducted given the likely benefits, consequences, and costs. Beyond deciding whether a program should be evaluated, an evaluability assessment also clarifies program intent, explores program reality to clarify the soundness of program objectives and likelihood of results, identifies opportunities for change to improve the program, and indicates how results can be used (Wholey, 1987). As a result of this evaluability assessment, 4-H Healthy Living programs that were ready for replication and/or more rigorous evaluation were identified. Because these programs have evidence of achieving desired outcomes, they could be considered for replication and further evaluation.

Implications for Using Environmental Scanning

Extension professionals interested in conducting an environmental scan could easily adapt survey items, as well as the process described in this article, to identify programs in other 4-H mission mandate areas, such as Science or Citizenship. Additionally, Extension professionals in Agricultural and Natural Resources, Family and Consumer Sciences, and/or Community Development could adapt the survey to identify programs that are ready for replication.

Utilizing a systematic approach to an environmental scanning process helped ensure quality in the 4-H Healthy Living Environmental Scan and Evaluability Assessment. Basing the survey tool on key elements of program planning and evaluation to ensure program theory and/or logic could be determined was important both for the subsequent evaluability assessment phase of the overall project, as well as for individual program development. Analysis of program information submitted in the environmental scan survey revealed several recurring program planning weaknesses. Disconnections between objectives, planned learning activities, and target outcomes were observed for several of these programs. In other situations, objectives or outcomes did not logically relate to one another. Thus, recommendations for enhancing program theory (i.e., theory of change) could be made to better position programs for future outcome evaluation and/or national replication. MSU Evaluation Specialists who conducted this project are offering tailored technical assistance on program planning and evaluation to a small group of Extension professionals working with 4-H Healthy Living programs identified in the

environmental scan. Webinars on program planning and evaluation topics for any professional implementing 4-H Healthy Living programs are in development. The purpose of these professional development opportunities is to help Extension professionals have a clear understanding of the role of a theory of change in improving program success.

As the pressure to implement evidence-based programs and practices increases, a comprehensive list of programs with evidence of impact will be essential. The rationale for implementing evidence-based educational programs has been well-documented over the last few decades (Brownson, Fielding, & Maylahn, 2009). For example, the *Guide to Community Preventive Services* (http://www.thecommunityguide.org/index.html), the *Community Toolbox* website (http://ctb.ku.edu/en), and the *National Registry of Evidence-based Programs and Practices* (http://nrepp.samhsa.gov) have provided practitioners with up-to-date information on effective programs and practices. The program environmental scanning process described here could be replicated by Extension professionals interested in finding programs with a solid theory of change and evidence of being ready for replication. Identification of such programs is one method of encouraging Extension professionals to implement evidence-based educational programs. Repeating an environmental scan on a regular basis, such as every three years, will ensure that newly developed or revised programs will be uncovered.

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