

Program Theory-Drive Evaluation Approach – An Exercise in Practice

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ABSTRACT

Chen, H. (1990) provided a comprehensive framework on the use of theory-oriented perspectives in program evaluation, discussing the nature and functions of program theory, approaches to constructing program theories, and the integration of program theory with evaluation processes. The framework relied on the ability for program implementers and evaluators to conceptualize understand programs through the use of program theory and/or logic models. Since then, the increasingly frequent use of logic models has been seen in energy efficiency as a tool for program conceptualization. In Chen, H. (2005), an updated version of conceptual modeling is introduced. The program theory model, seen in Chen, H. (2005), incorporates the use of a change model, explaining the descriptive assumptions, and the action model, describing the prescriptive assumptions, to provide a conceptual framework of program theory.

For Southern California Edison's Local Government Partnership Program, a program theory model, using Chen, H. (2005) as a guide, is developed as part of the program's strategic business plan. The purpose of the model is to provide a succinct and useful program conceptualization for stakeholders involved in the program process. The program theory model describes (1) the explicit and implicit assumptions made by program stakeholders about the actions required to obtain greater energy efficiency, and (2) how these actions will lead to specific outcomes that result in the program accomplishing its goals. The exercise allows us to study the implications of how the current applications of theory-driven program evaluation may be improved upon by the use of the Chen, H. (2005) program theory model from the commonly used logic models.

INTRODUCTION

This paper provides a program conceptualization model for Southern California Edison's PY2006-2008 Local Government Partnership Program. The purpose of the Local Government Partnership Program is to assist local jurisdictions in mobilizing and developing their communities' strengths and assets in order to educate and distribute information on energy efficiency, demand response, self-generation and low income programs. The reasoning behind the Program is to utilize the established community support and trust of local jurisdictions as an alternate outreach mechanism to Southern California Edison (SCE) customers.

According to prior program evaluation reports for SCE's PY2002-2003 Local Government Initiative program, findings described missing opportunities in partnerships between SCE and local jurisdictions to address energy efficiency in municipal buildings. The studies recommended SCE to increase its efforts to "...achieve its true potential in partnering with local jurisdictions to deliver energy savings." In addition, local governments are now more than ever interested in energy efficiency as they develop strategies to implement the Governor's Executive Order S-20-04, The Green Building Action Plan.

A local partnership is composed of local jurisdictions, such as counties and cities, that form a joint venture with SCE to generate greater energy efficiency awareness and activity. The objectives of partnerships are to:

1. Significantly increase the availability of information and education programs to all market segments in the area

2. Increased participation in the installation of energy efficient equipment through various statewide and local programs that will deliver long term savings and peak demand reduction.
3. Leverage the institutional strengths and communication infrastructure to identify and respond the specific needs of constituents.

To support the Program, a business plan was developed to provide a succinct and useful program conceptualization for stakeholders involved in the program process. A program theory model was created describing (1) the explicit and implicit assumptions made by program stakeholders about the actions required to obtain greater energy efficiency, and (2) how these actions will lead to specific outcomes that result in the program accomplishing its goals.

PROGRAM THEORY MODEL BACKGROUND

Chen (1990) described program theory as “a specification of what must be done to achieve the desirable goals, what other important impacts may also be anticipated, and how these goals and impacts would be generated. Chen (2005) expanded upon his past description of program theory to include the analysis of the “set of explicit or implicit assumptions by stakeholder about what action is required to solve a social problem and why the problem will respond to this action”.

An example of the Chen (2005) program theory model is provided in Figure 1. The model is composed of:

- The Change Model – The descriptive assumptions of the causal processes in which a program addresses a specific social problem
- The Action Model – The prescriptive assumptions of the components and activities necessary to a program’s success

The Change Model is similar to the program logic model used widely in current energy program evaluation. Assumptions about causal processes through which treatment or intervention is supposed to work are crucial for any program, because its effectiveness depends on their validity. If invalid assumptions dictate the strategies of a program, it is unlikely to succeed. The components of the Change Model include:

- Goals or outcomes of what unmet needs to the program hopes to achieve
- The determinants or leveraging mechanism of how the program will reach its goal
- The intervention of how the program activities aim to change the determinant

The Action Model prescribes those components and activities program stakeholders see as necessary to a program’s success. These prescriptive assumptions determine the means of implementing and supporting the intervention so that the process described in the Change Model can occur. Implementation of the Action Model puts a program in motion. Like the Change Model, if the Action Model is based on invalid, poorly constructed or unrealistic assumptions, the program is not likely to meet with success. Elements with the Action Model are:

- The intervention and service delivery protocols – The curriculum or prospectus stating the exact nature, content, and activities of a program and the particular steps to be taken for program delivery
- Implementing organization – The organization or organizations who allocate program resources, coordinate activities, and recruit, train, and supervise implementers and other staff

- Program implementers – The people responsible for delivering services to program customers
- Associate organization/community partners – The collaborations with other organizations which benefit the program
- Ecological context – The portion of the environment that directly interacts with the program
- Target population – The group of people that the program is intended to serve

All components are placed in the “environment”, providing the program with necessary resources and support. The relationships among program components are illustrated through arrows. The double-banded arrows between two components represent a sequential order between these two components. Solid arrows depict causal relationships. Dotted arrows represent feedback loops where information can be used to improve program implementation

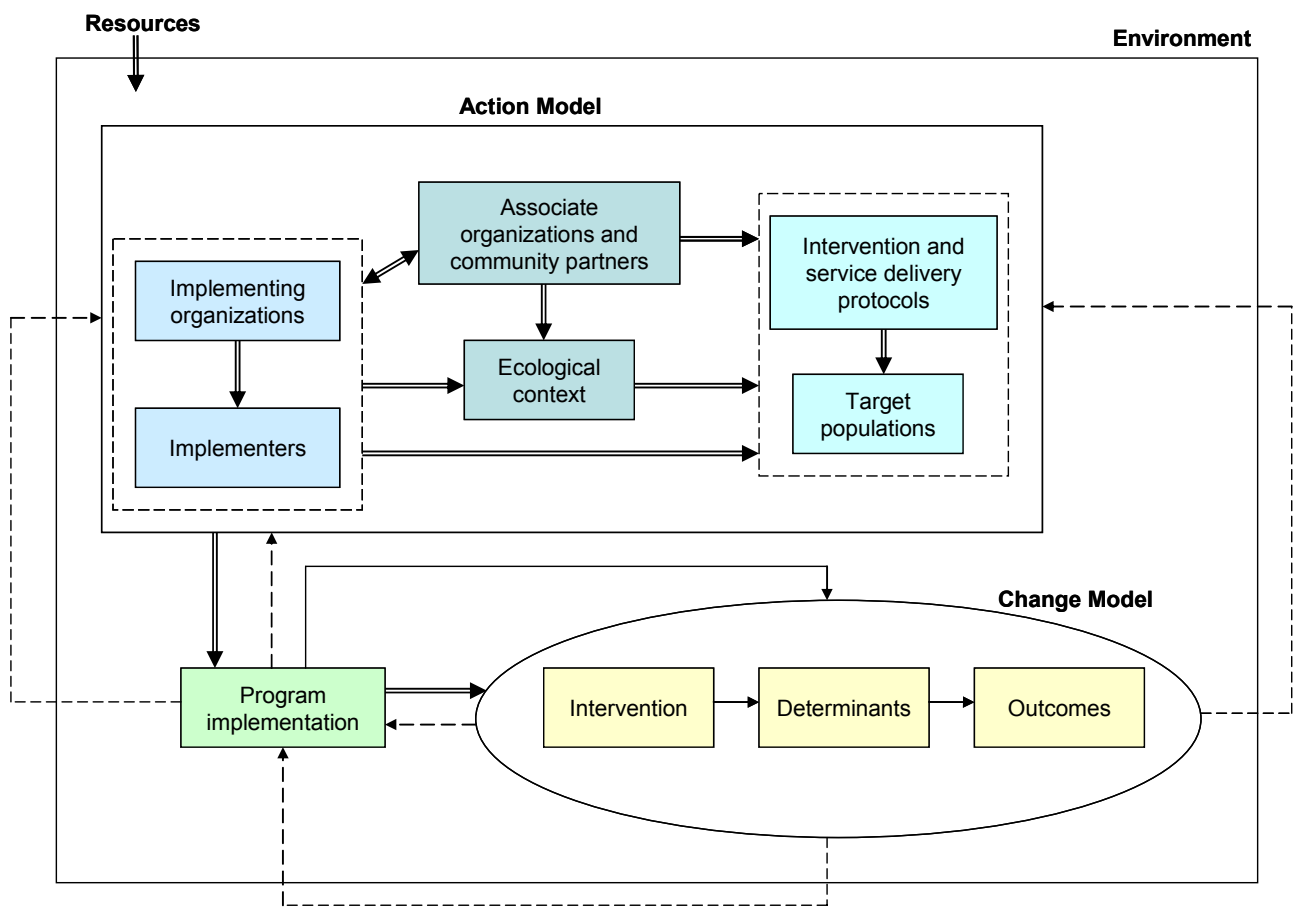


Figure 1. Conceptual Framework of Program Theory

LOCAL GOVERNMENT PARTNERSHIP PROGRAM THEORY MODEL

Figure 2 is the local government partnership program theory model. The underlying change theory model behind the program is that local communities are untapped resources to reach SCE customers because of their established connections and trust with the residents and businesses within their communities. The intent is to reach those who have not responded to traditional utility marketing

approaches and are more likely to listen to neighborhood grass-roots efforts. By providing informational, technical, and marketing support to local partnerships on the benefits of participating in SCE energy efficiency programs, the desired outcome is to increase participation in SCE incentive programs, leading to greater energy savings for SCE's overall goals.

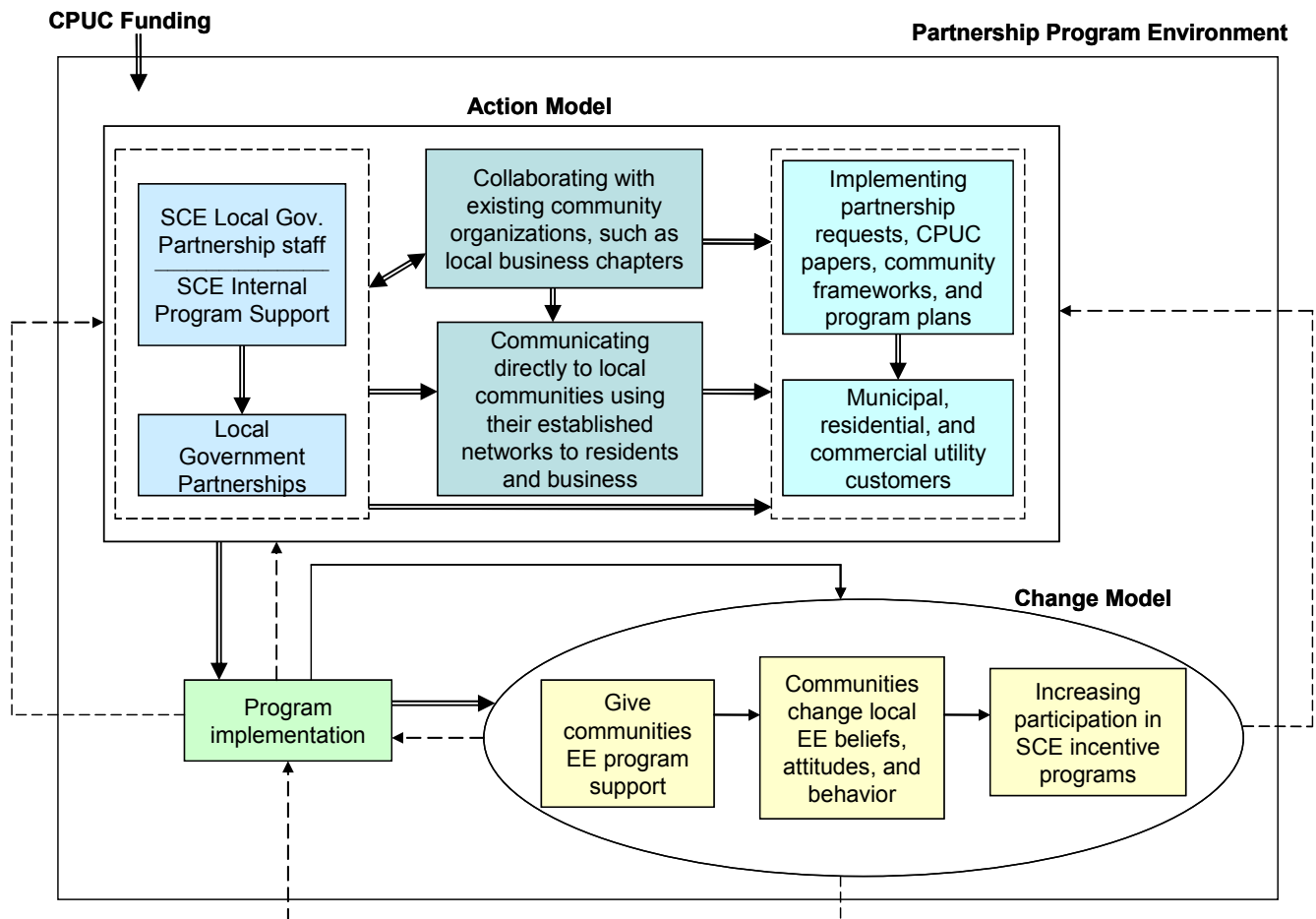


Figure 2. Local Government Partnership Program Theory Model

The program action model inputs start with the implementation organization which in this case is SCE's Local Government Partnership staff. For community based organization, such as the Local Government Partnerships, there are often insufficient qualified personnel that have the skills, experience, and time availability for the program. Usually, the Local Government Partnership's capacity to conduct the program must be built up. Thus, SCE's Local Government Partnership staff will be highly involved in capacity building, involving activities such as providing information and coordination with SCE available resources to help plan and conduct the implementation. To this end, other SCE business units are needed for representation in the coordination effort. This includes:

- Business Customer Division (BCD) – This SCE business unit deals with institutional facilities managers. Staff offer direct customer assistance with the local jurisdictions involved in the program. As such, coordination with the BCD is integral on the types of facility improvement services SCE can provide in the program.
- Local Public Affairs – This SCE business unit deals with policy issues related to the local jurisdictions. Staff offers assistance to corporate representatives on strategic planning. The

program relies on Local Public Affairs to provide oversight on SCE's role in developing relationships with the local communities.

- Community Relations – This SCE business unit conducts public events within local jurisdictions to markets SCE programs and services. They will provide assisting in the marketing events being held for the program.
- EE Incentives Programs – This SCE business unit provides energy efficiency programs offering incentives for energy savings opportunities. The program will direct residents and business of the local jurisdictions on how to best utilize SCE energy efficiency incentive programs.

The implementing organization is the Local Government Partnership. The partnerships may consist of a single city or county or a set of communities that have formed in a joint organization to carry out services.

Establishing collaborations is a key piece of the program. City and county jurisdictions have already established connections with other community organizations which can serve as important allies, such as the local chamber of business, school districts and their parent-teacher associations, and other community groups.

Within the model, the ecological context was shown for only the energy savings possibilities provided by the program. However, another macro-level context for local communities participating in the program as a partnership is that it provides opportunities for the communities beyond that of greater energy efficiency support. In the program evaluation report for the Local Government Commission's PY2002-2003 Regional Energy Authorities program, communities' members found that they were able to establish strong working relationships through the non-divisive goal of greater energy efficiency opportunities leading to greater willingness to collaborate on other community issues.

The target population is SCE customers within the community served by the local partnership. Greater detail on target groups are given the performance measurement system

CONCLUSION

Following the Chen's 2005 model, a program theory model was created for SCE's Local Government Partnership Program. For this case, the model was created for two purposes. First, it serves as a graphical representation of the underlying program design premise. Second, it allows program stakeholders to understand their roles in program implementation. Unlike logic models being used solely for evaluation purposes, Chen's 2005 model can be utilized for program design and implementation.

REFERENCES

Chen, H. 1990. *Theory-driven Evaluation*. Sage Publications Inc.: Newbury Park, CA.

Chen, H. 2005. *Practical Program Evaluation: Assessing and Improving, Planning, Implementation, and Effectiveness*. Sage Publications, Inc.: Newbury Park, CA.