Logic Models: A Tool for Engaging in Sub-Field, Multidisciplinary and Multi-Stakeholder Research?

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ABSTRACT

One of the ongoing challenges facing anthropology is engagement across sub-fields within anthropology as well as between disciplines. As a participatory oriented health anthropologist and social work researcher, we find ourselves engaged in research that bridges disciplinary, institutional, organizational, and community level stakeholders. Effective communication continues to be a cornerstone for meaningful participation at all levels. This poster outlines the major features of an approach borrowed from the health promotion field that we have been using as a research tool. Logic models (LM) are diagrams that explicitly show the relationships between objectives, activities aimed at meeting objectives, indicators of activities, and resources available to undertake activities. LM were initially designed to assist community-based organizations in assessing the effects of health and social service programs. More recently, however, we have begun to appreciate the utility of this approach as a means of clarifying our research process in multidisciplinary and multi-cultural contexts. We report in this poster on the unfolding process of using LM, highlighting strengths and weaknesses. The example we will draw on is our use of LM in the design and methodology of a research strategy for a project aimed at identifying appropriate community health and capacity indicators for two Canadian First Nation health organizations. While only in the early stages, LM have proven to be a particularly effective means of facilitating collective understandings of the complex and diverse theoretical and methodological orientations represented in this research project.

CHALLENGE: EFFECTIVE COMMUNICATION IN RESEARCH THAT BRIDGES (SUB)DISCIPLINARY, INSTITUTIONAL, ORGANIZATIONAL, AND COMMUNITY LEVEL STAKEHOLDERS

One of the challenges in this type of research is explicitly outlining the process in such a way that all stakeholders can link proposed activities with the rationale for undertaking them and the expected outcomes. Clarifying the research process facilitates an inclusive critical appraisal of the course of action and the theories underlying it –right from the planning stages. We have found logic models to be an effective tool in this process, essentially providing a common structure and language for conversations on collaboration to take place.

WHAT IS A LOGIC MODEL?

A logic model is a description, often in the form of a diagram, of the relationship between goals, objectives and activities, as well as indicators of progress and resources available to complete the work. The presence of particular elements in a logic model and the connections between elements are hinged on underlying theories and assumptions –the empirical, philosophical and theoretical beliefs upon which a project is based (Taborí and Hermann 2001; Weiss 1997).

HOW HAVE LOGIC MODELS BEEN USED?

Logic models have primarily been used in the area of program planning and evaluation (Dwyer and Makin 1997; Judge and Bauld 2001) Program planners or deliverers can use them to show/evaluate how their services result in favorable outcomes for program participants. The model articulates program goals (long term and short term) and then proceeds to identify specific actions that the program will be responsible for (process objectives). It also sets specific targets for participant involvement with the program activities and services, and it identifies the measurable outcomes (indicators) that are intended as a result of program activities.

Program evaluation is the context in which we first began to use logic models. The logic models were well received and proved to be an effective means of launching discussion and providing rationale for the types of interview questions we were asking.

The communication challenges in some research environments are similar to the program evaluation context. The success of the logic model as a communication tool in evaluation work lead us to consider its application in the diversely peopled research settings we work in –particularly in the area of community-university research partnerships. We have since found that others are also using logic models in this way (Betts and Stuart 2002).

HOW ARE WE USING THE LOGIC MODEL IN RESEARCH?

We have used logic modeling to develop the structure for a research project, "*First Nations Health Development: Tools for Assessment of Health and Social Service Program Impacts on Community Wellness and Capacity*" (Figure 1). Logic modeling was used in workshop style discussions with the multidisciplinary team and First Nation collaborators to develop the research strategy. We drew on the numerous resources available on structuring logic model workshops (University of Toronto 2001, Taborí and Hermann 2001). This approach facilitated our development of a research strategy that is both academically rigorous and contextually appropriate. The logic model was subsequently used to describe the project in a successful funding application[1], and continues to guide the progress of the work as well as anchor discussions with team members and collaborators.

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First Nation Health Organizations Goal	Track health and social service impacts on community wellness and capacity
Underlying beliefs/ assumptions	These activities are necessary to the ongoing development of programs and services under First Nations control

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Logic Model Element	Description	Timeline
Research Component	Project: "Tools for the Assessment of Health and Social Service Program Impacts on Community Wellness and Capacity"	June 2002 - September 2004
Underlying beliefs/assumptions	Current community health indicators and program evaluative frameworks need to be adapted to Aboriginal world views. There is a need to conduct research on concepts of community health and capacity that will inform the development of an appropriate evaluative framework and indicators	
Research Component Goal	Develop indicators and an evaluation framework for use by First Nation health organizations to track the effects of health and human service programs under their jurisdiction on community wellness and capacity	
Target Population	First Nations health organizations, health and social service program planners and service delivery professionals, community members	
Resources	U of S, U of R, and SIFC research faculty, students; staff and infrastructure (e.g. office space); health and social service program partners; First Nation health organizations; CIHR and HSURC financial support	

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Logic Model Element		Description	Timeline	Deliverable
Process Activities (PA)	1	Conduct secondary analysis of research literature and program documentation for existing community health and capacity indicators and frameworks, including those specific to a First Nation context and perspectives		
	2	Conduct key informant interviews with health and human service program directors		
	3	Complete logic models that identify program components contributing to community health and capacity-building, highlighting indicators		
	4	Develop an initial evaluative framework based on First Nations perspectives of how and why programs and services are expected to realize community health and capacity		
	5	Conduct interviews with health and human service program personnel and focus groups with health committee members and community members using the initial framework and logic models as tools		
	6	Data analysis		
Process Indicators (PI)		Synthesis report and booklet for use as interview tool (PA1)	December 2002	*
		Completion of initial evaluative framework and logic models (PA 2,3,4)	March 2003	
		Completion of primary data collection and analysis (PA 5,6)	August 2003	

Figure 1: Research Project Logic Model

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Logic Model Element		Description	Timeline	Deliverable
Short Term Objectives (SIO)	1	Development of culturally appropriate and relevent indicators of community health and capacity		
	2	Development of an evaluative framework that explains the theoretical basis for the selection of particular indicators.		
Short Term Indicators (SII)		Final report on evaluative frameworks and indicators (SIO 1, 2)	October 2003	*

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Logic Model Element		Description	Timeline	Deliverable
Long Term Objectives (LTO)	1	Develop a package to train staff in the collection of information on the proposed indicators		
	2	Provide training in a way that can be delivered using independent learning rather than face to face instruction		
	3	Dissemination of results to community members		
	4	Revision of training package		
	5	Development of followup strategy and resources		
Long Term Indicators (LTI)		Completion of multimedia training package (LTO1)	October 2003	*
		Implementation of training package with feedback process (LTO 2)	October 2003 -March 2004	
		Report on training package feedback (LTO 2,4,5)	March 2004	*
		Final dissemination and training package for use by managers and community practitioners complete (LTO4)	September 2004	*
		Completion and presentation of community video (LTO 3)	September 2004	*
		Completion of renewal application (LTO 5)	September 2004	*

HOW CAN LOGIC MODELS BE USED IN RESEARCH?

- To reveal/ test/ critique the assumptions/ theories on which a project is based.
- Can allow for a variety of theories, assumptions or beliefs to be linked as components of a central theme –each linked to a specific set of activities and resources.
- To develop and describe a program of research with stakeholders that will:
  - clarify the linkage between objectives, activities, and resources
  - ensure the appropriateness and timing of proposed activities
  - reveal where expertise lies and how various stakeholders will work together
- To describe a project to potential funders
- To create a blueprint for administration and planning

CHALLENGES

- Time intensive
- Scheduling difficulties
  - Works most effectively when all stakeholders can be present.
- Need for development resources

STRENGTHS

- Opportunity for multi-stakeholder participatory engagement from planning through decision-making and action
- Facilitates collective understanding of complex phenomena
- Clearly articulated process that allows the consideration of what worked and what did not work in a research process

Other members of the research team

- Ronald Labonte, Alison Williams, Nazeem Muhajarine, George Maslany, Georgia Bell Woodard, Michael McCubbin, Marcy Burka-Charles (SPHERU)
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