Program theory-driven evaluation science in a youth development context

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ABSTRACT

Program theory-driven evaluation science (PTDES) provides a useful framework for uncovering the mechanisms responsible for positive change resulting from participation in youth development (YD) programs. Yet it is difficult to find examples of PTDES that capture the complexity of such experiences. This article offers a much-needed example of PTDES applied to Project K, a youth development program with adventure, service-learning and mentoring components. Findings from eight program staff focus groups, 351 youth participants' comments, four key program documents, and results from six previous Project K research projects were integrated to produce a theory of change for the program. A direct logic analysis was then conducted to assess the plausibility of the proposed theory against relevant research literature. This demonstrated that Project K incorporates many of the best practice principles discussed in the literature that covers the three components of the program. The contributions of this theory-building process to organizational learning and development are discussed.

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1. Introduction

Youth development programs offer experiences that are designed to promote young people's holistic growth (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004; Roth & Brooks-Gunn, 2003). They take many forms including adventure, arts, or culture-based programming; community involvement and service; life skills training and mentoring (Ministry of Youth Development, 2009). Many use a combination of novel or challenging activities and relationship building to build skills, confidence, and connection to others within an empowering, youth-centred context (Gallagher, Stanley, Shearer, & Mosca, 2005; Roth & Brooks-Gunn, 2003; Urban, 2008). Although programs vary in the specific outcomes they target and their efficacy in achieving these, there is evidence that they can help develop young people's practical, interpersonal, and intrapersonal skills, as well as the self-efficacy and motivation to engage with life and the challenges and opportunities it offers (Catalano et al., 2004; Deane & Harré, 2013; DuBois, Portillo, Rhodes, Silverthorn, & Valentine, 2011; Durlak, Weissberg, & Pachan, 2010).

Despite having ambitious goals and in many cases showing positive outcomes, there is variation in the effectiveness for participants within and across such programs (Deane & Harré, 2013; DuBois et al., 2011; Durlak et al., 2010) and the reasons for this variation are not well understood. For instance, few evaluations offer evidence of how outcomes are achieved and for whom they work best (Durlak et al., 2010; Larson, 2011; Riggs & Greenberg, 2004). Program theory-driven evaluation science (PTDES, Donaldson, 2007), a contemporary addition to the theory-driven evaluation genre, provides a useful framework for designing evaluation studies that can redress this gap.

Like all theory-driven evaluation approaches, the central task of PTDES is to make explicit the reasoning or "theory" behind how a program is presumed to produce positive change. This theory is then used to identify evaluation questions that assess how well the theory stands up in practice. PTDES is distinguished from other approaches in its emphasis on using scientifically rigorous methods to assess the theorized links (Donaldson, 2007). These methods could include unstructured or semi-structured interviews or observations, document reviews, quasi or true experimental designs. According to Donaldson (2007) multiple sources should be used to generate the program theory including discussions with stakeholders, observations of the program in action, and the social science literature. Stakeholders should also be involved in prioritizing the evaluation questions that result from the process. Finally, methodological

flexibility is needed, driven by the questions being asked and the context in which the program operates.

Donaldson's framework can be usefully employed to address the numerous calls for an increase in rigorous and diverse research methods that account for program processes and moderating influences within the youth development field (Durlak et al., 2010; Larson, 2011; Riggs & Greenberg, 2004). The current article aims to show how an approach based on PTDES can contribute to meeting this call. It is also a much needed case example of theory-driven evaluation as, to date, theoretical articles on this approach have far outweighed practice cases (Coryn, Noakes, Westine, & Schroter, 2011; Donaldson, 2007). This has led to some questioning the utility of the theory-driven evaluation genre (e.g. Stufflebeam, 2001), a question we hope to refute.

The focus for our study was the development of a program theory for Project K, a New Zealand youth development program that operates in seven centres throughout the country. Project K involves young people in their second year of high school who have been identified through a self-report survey and teacher ratings as having low self-efficacy. The program is run with groups of 12 students from a single high school. They begin with a 21-day *Wilderness Adventure*. This involves goal-setting, communication, and problem-solving activities at a residential outdoor camp followed by a 7- to 10-day journey in the wilderness in which they take turns being the group leader. Next, participants return to their daily routines but simultaneously undertake a *Community Challenge* in which they develop a project to contribute to their community. In the final program stage, each participant is matched with a trained adult mentor. The pair meets fortnightly and the mentor provides support with goal-setting and generally acts as a non-judgemental friend over a 12-month period (see www.fy-d.org.nz for more details).

Project K was developed by the Foundation for Youth Development (FYD). FYD licenses regional centres throughout New Zealand to implement the program. Each centre has a Regional Manager who oversees the administration and delivery of the program. All Regional Managers are provided with detailed training and program materials in order to promote program fidelity. Adventure programming providers are contracted to facilitate the Wilderness Adventure and, in some regions, the Community Challenge. As a result, internal regional staff members are not always directly involved in these components. Mentor coordinators are, however, employed as part of the regional team to oversee the Mentoring component.

A strong evaluation culture is also promoted by FYD, and in 2004 a longitudinal, randomized controlled trial (RCT) evaluation that focused on self-efficacy, academic achievement and several health and lifestyle behaviours was put in place. This study is ongoing and several other process evaluations have been conducted since the program commenced in 1995 (these are outlined in more detail further on). Despite the RCT and other process evaluations, at the time of the current study Project K had not gone through a systematic and detailed process of identifying the underpinning theory for the program, hence the theory of change process described here.

In the remainder of this article we outline the development of Project K's theory of change and show how it is being used for further research and program development. We finish by highlighting the benefits and limitations of our approach and providing recommendations to other evaluators and program developers, particularly those with a youth focus.

2. The theory-building process

Drawing on Donaldson's PTDES approach, we developed a four-step process to guide the development of Project K's theory of change. The steps were: (1) *generate the preliminary theory* grounded in the views of those close to the program; (2) *assess the level of consensus* across different program sources; (3) *conduct a direct logic analysis* (see Brouselle & Champagne, 2011) of the program theory by assessing whether or not the proposed links between program processes, influencing factors, and outcomes seemed plausible according to the social science literature; and (4) *assess the hypothesized links* by systematically investigating the relationships between the proposed linkages. Here we outline the first three steps and how we set the stage for the fourth. Ethical approval for the study was granted by The University of Auckland Human Participants Ethics Committee.

3. Method

3.1. Step 1: Generating the preliminary theory

For this stage the first author conducted a focus group interview with the two program founders, both of whom were still active in managing the program. In addition, she conducted one individual and four focus group interviews with a total of 15 staff members involved in program delivery from all but one regional centre (two to five people participated in the focus groups, including the Regional Managers). We will refer to all these data as "staff interviews" from here on. Detailed notes were kept throughout the interview process.

The interview questions were informed by Gugiu and Rodriguez-Campos' (2007) Semi-Structured Interview Protocol for conducting logic models. Questions relating to the *antecedent condition* (i.e. the situation that prompted the need for the program), the *participant profile, the essential program strategies, the influencing factors* (i.e. moderating variables that influenced the operation and success of the program), and the *key outcomes* were posed to the interviewees (see online Supplementary Material). Where appropriate, the first author also asked participants about interactions and causal links between the phenomena they discussed. For instance, if the interviewees drew attention to a positive outcome resulting from the program (e.g. self-confidence), she would ask what process within Project K generated the outcome and which factors might reduce or enhance the likelihood of this outcome occurring.

To generate a preliminary program theory, an inductive approach was taken where questions about the program components guided the analysis but no preconceived thematic categories were formulated prior to engagement with the interview notes. The notes from the staff interviews were examined in detail and themes produced by following Braun and Clarke's (2006) six-step guideline for thematic analysis: familiarization of data through multiple readings; identification of similarities and distinctions across transcripts; regrouping of similar themes into overarching thematic categories; review and revision of extracts to identify any miscategorization; reflection on the meaning assigned to thematic categories; and finalization of thematic labels.

Because the aim was to produce a theory that best represented the views of those closest to the program, both the prevalence of a concept and the experience-level of the person articulating it were considered. For instance, particular importance was given to the views of the program founders as they had been involved with the program since its inception. Another staff member had extensive involvement in the wilderness and community components of the program and found it easy to explain how these were linked to positive outcomes, whereas those involved in coordinating and monitoring the mentoring relationships evidently had more to offer in terms of the contribution of this component. It is important to note that although the first author attempted to elicit causal sequences from the focus group participants when discussing