Managing Tensions Between Evaluation and Research: Illustrative Cases of Developmental Evaluation in the Context of Research

Lynda Rey1, 2, 3, Marie-Claude Tremblay1, 2, 3, Astrid Brousselle3, 4

1École de santé publique, Université de Montréal, Montreal, QC, Canada

2Institut de recherche en santé publique de l'Université de Montréal (IRSPUM), Montreal, QC, Canada

3Canada Research Chair in Evaluation and Health System Improvement, Université de Sherbrooke, Longueuil, QC, Canada

4Département des sciences de la santé communautaire, Université de Sherbrooke, Longueuil, QC, Canada

Abstract

Developmental evaluation (DE), essentially conceptualized by Patton over the past 30 years, is a promising evaluative approach intended to support social innovation and the deployment of complex interventions. Its use is often justified by the complex nature of the interventions being evaluated and the need to produce useful results in real time. Despite its potential advantages, DE appears not to have been very widely used in research. The authors of this article decided to use this emergent approach in two evaluative research projects in health promotion. This article, coming out of their experiences, aims to assess the appropriateness of DE in research and describes issues related to its use. First, DE is presented, along with the potential advantages of its use in research. This is followed by a discussion of tensions related its application encountered in two studies carried out by the authors. The key issues are related to the links between academic and evaluative objectives, the dual role of researcher and consultant, and the temporality of the process. Finally, weighing the advantages of DE against its challenges, the authors conclude with a diagnosis regarding the application of this approach in research.

Keywords : developmental evaluation, complex intervention, research, challenges

Introduction

)11) over the past 30 years, is a promising evaluative approach intended to support the development and deployment of complex and innovative interventions. Complex interventions, especially social innovations (Cloutier, 2003), are adaptive, dynamic systems. They are characterized by unpredictable emergent effects and some degree of uncertainty, making their evaluation particularly difficult (Zimmerman et al., 2011). Evaluating complex interventions raises serious conceptual, methodological, and operational issues that must be considered if the evaluation results are to be useful for both research and practice (Beywl, 2012; Contandriopoulos, Rey, Brousselle, & Champagne, 2012).

DE aims to address this concern by adapting to the disorderly and uncertain realities of complexity rather than seeking to impose order and certainty. It also promises to support in real time the development of innovative programs and to continuously inform users' decision making. Such an approach could therefore be especially useful in evaluative research when the interventions being evaluated are complex and require real-time results (Nutbeam, 1999; Potvin, Bilodeau, & Gendron, 2008; Tremblay & Richard, 2011). Aside from Patton's writings, the evaluation community's enthusiasm for DE is, however, relatively recent; hence, the paucity of scientific publications on this topic.

Based on two illustrative cases, the aim of this article is to explore the potential of using DE as a research approach. It examines in particular the tension between utilization-focused evaluation and research. First, we present the DE approach along with the potential advantages of its use in research. Then, we discuss three challenges encountered in applying the approach in the evaluative research we conducted: (1) linking research and evaluative objectives, (2) the dual role of researcher and consultant, and (3) the temporality of the process. Finally, weighing the advantages of DE against these challenges, we conclude with a critical review of the use of this approach in research. Taking into consideration our experiences when applying DE in research, we discuss whether the potential advantages of this approach outweigh the difficulties related to its use.

Understanding DE

Definitions and Purpose

Developed by Patton (2008), DE, which is mainly consultant oriented, is part of the stream of utilization-focused evaluation aimed at making evaluation relevant for its primary users. The main criteria that should be applied in judging utilization-focused evaluation are its utility and its capacity to support action (Patton, 2008). DE is presented as a utilization-focused evaluation option geared particularly toward supporting, in real time, the development of innovative programs that are dynamic, complex, and unpredictable (Gamble, 2008; Patton, 1994, 1996b, 2002, 2008). In a developmental approach, the evaluator is an integral part of the project team, stimulates discussion through a series of evaluation questions, and facilitates data-informed decision making throughout the innovation–development process (Alkin & Christie, 2005; Patton, 2008). A strong, real-time feedback component is important to guide the intervention's development and to support learning throughout the process of collecting and analyzing data (Dozois, Langlois, & Blanchet-Cohen, 2010; Patton, 2008). In addition, the project team collectively interprets the data and then applies the necessary measures to the next stage of development. As a member of the team, the evaluator is involved in improving the intervention and uses a variety of tools to support the program, the project, the product, the personnel, and/or organizational development (Patton, 1999, 2011). Thus, this evaluative process produces learning that benefits everyone involved (evaluators and users).

DE is the opposite of evaluation aimed at creating accountability reports (Dozois et al., 2010; Patton, 1999) or producing summative judgments on an intervention's effectiveness. For Patton (2006), most evaluation criteria are not appropriate for DE conducted under conditions of complexity, uncertainty, and social innovation. Moreover, unlike traditional evaluative approaches, DE involves continually modifying the intervention model to adjust to changing conditions and new understandings as they emerge (Patton, 2008). It provides a better understanding of the specific aspects of the context that influence the innovation in the course of development (Patton, 2008). The evaluative process in itself is an objective targeted by DE (Gamble, 2008; Patton, 1994, 1996b, 2008), since it enables the actors involved (i.e., the project team) to learn by reacting to the data provided by the evaluation in order to reorient the intervention (Fagen et al., 2011; Patton, 2006).

Methodologically, Patton (2011, p. 264) likens DE to a "bricolage" project, especially since it is possible to experiment with using a variety of methods, designs, and tools. The DE process is compatible with all approaches and methods, to the extent that they take into account the complexity of an intervention and offer opportunities to better understand and support its development as well as to grasp the dynamics of the system in which the intervention is situated and imagine innovative strategies and ideas (Dozois et al., 2010; Patton, 2011).

Practice and the Evaluator's Role

The practice of DE is based, in large measure, on the consultant role assumed by the evaluator. The developmental evaluator must overcome antagonisms to construct a solid partnership and a long-term relationship of trust with the project team that often is the primary user of the results. As a member of the team, the evaluator prompts the other members to reflect on the innovation in progress and to use the evaluation results to support the innovation's development. Users and evaluators together become true agents of change (Patton, 2011).

According to Gamble (2008, p. 37), "there are different ways to fill the role of developmental evaluator: as an external consultant, a trusted peer or an internal team member assigned to the role. Each has advantages and disadvantages." However, it is often problematic for evaluators to keep a certain balance between maintaining relationships of trust and "fulfilling the 'speaking truth to power' element of the role" (Gamble, 2008, p. 27). Whatever their status, evaluators must possess both professional competencies (expertise in the field, knowledge of the subject matter, credibility, etc.) and social skills (listening, communication, flexibility, etc.) (Dozois et al., 2010; Gamble, 2008). The practice of DE is generally organized around four main concurrent activities (Dozois et al., 2010):

Orientation

The evaluator supports the users and helps them clarify the principles underlying the innovation and understand the characteristics and limitations of the dynamic and complex system, the strategies, and the markers of progress.

Observation

The evaluator is attentive to key moments in the intervention's evolution. In particular, he should attend meetings whenever possible, and monitor the prevailing dynamics, the power plays, and the collective learning. He should be able to translate best practices into empirical data to guide future action (Patton, 1999).

Sensemaking

Given the abundance of data generated by this evaluative process, the evaluator shares with the group the responsibility for analyzing them collectively (Dozois et al., 2010; Gamble, 2008). Together, they give meaning to the data and learn to incorporate them into their everyday practice.

Development of the intervention

In contrast to traditional evaluative approaches, the developmental evaluator, with expertise and immersion in the setting, is positioned to influence and shape the process of developing the intervention. The evaluator intervenes by asking questions, moderating the sessions whenever possible, offering reminders, and encouraging collaboration between the group of key users and all available organizational and social resources.

DE thus has characteristics and practical implications that position it in a specific evaluative niche. Its features justify considering it as a potentially interesting option for certain types of evaluative research.

Using DE in Research

Although the terms evaluation and research are sometimes used interchangeably (Preskill & Russ-Eft, 2005, p. 5), and the two forms of inquiry use the same data collection and analysis methods, they usually have different purposes, propose different kinds of questions, and have different expectations regarding the use of the results (Brousselle, Champagne, Contandriopoulos, & Hartz, 2011). However, the distinction between evaluation and research is significantly blurred with the professionalization of evaluation (Fournier, 2004; Jacob, 2010). In fact, competent evaluators provide high-quality evaluations that usually rely on rigorous research methodology. That said, we must acknowledge that DE is fundamentally consultant practice-oriented approach. Thus, it is not yet much used in research. A brief review of the

literature on DE carried out in April 2012 using the ISI Web of Knowledge database, which covers more than 12,000 international journals in the fields of science, social science, arts, and humanities, generated very few results on this topic. In fact, our review, limited to the years 1990–2012 (the term DE being relatively recent), identified 98 publications with the key word "DE" as subject. Among these, only eight were considered relevant based on their abstracts and contents (Beywl, 2012; Campbell, Patton, & Patrizi, 2003; Cartland, Ruch-Ross, Mason, & Donohue, 2008; Cherniss & Fishman, 2004; Patton, 1994, 1996b; Potter & Naidoo, 2009; Saari & Kallio, 2011). Three were articles written or cowritten by Patton (Campbell et al., 2003; Patton, 1994, 1996b), and another was a critical review of a book by Patton (Beywl, 2012). The articles considered nonrelevant were mostly in the fields of human or cognitive development (paediatrics and education), or the development of various living organisms (biology and microbiology), which did not correspond to DE as conceived by Patton.

This list of publications on DE is not exhaustive, since we used only one search engine. However, it is clear that DE has not been the subject of a significant number of scientific publications, which suggests that its use is, for the moment, mostly limited to consulting or professional practices. It may be that the scarcity of empirical applications published in scientific journals reflects the recent emergence of this approach. In an article particularly examining the challenges of DE, Poth, Pinto, and Howery (2011) point to the lack of literature on this topic and add that " … it will be necessary to build a body of knowledge around DE with particular emphasis on sharing experiences from both the evaluator and stakeholder perspectives" (p. 46).

Yet, DE's characteristics make it especially attractive as a research approach, particularly in public health, which often deals with dynamic and emergent interventions implemented in complex social environments. As an approach to doing research, DE offers three major advantages. It enables the researcher to (1) adapt to the imperatives of the complexity inherent in social phenomena; (2) support the unfolding of interventions in real time; and (3) adhere to the principles of participation and empowerment fostered in some research traditions such as public health and health promotion.

Adapting to and Working With the Complexity of Social Interventions

A social intervention, such as a health promotion intervention, is conceived by some authors as "a complex social reality that functions as a system" (Potvin et al., 2008). By this, it is understood that this type of intervention does not follow a linear cause-and-effect logic and that it is a dynamic, adaptive system characterized by unpredictable emergent effects and some degree of uncertainty (Nutbeam, 1999; Potvin & Goldberg, 2006; Potvin et al., 2008). This can be seen particularly in participatory programs, which evolve over time as actors negotiate with each other (Potvin et al., 2008; Rootman et al., 2001). Thus, it becomes nearly impossible to attribute single causes because of synergies with other phenomena, secular trends within the systems, and feedback loops (Nutbeam, 1999). These features make it difficult for social

interventions to be properly evaluated by experimental designs or traditional impact evaluations (Patton, 2006, 2011). Designed in response to these considerations, DE aims precisely at grasping the complex reality of social interventions. "Developmental evaluation tracks and attempts to make sense of what emerges under conditions of complexity, documenting and interpreting the dynamics, interactions, and interdependencies that occur as innovations unfold" (Patton, 2011, p. 7). In fact, rather than seeking to impose order and certainty, DE adapts to the disorderly and uncertain realities of complexity, with an evaluative process not determined by preset goals, evaluator immersion in the project team for deeper comprehension, and feedback allowing the evaluator to adjust to the changing environment and the intervention's progression (Patton, 2011). Therefore, these assumptions support the advantage of using DE as a research approach to researching complex intervention.

Supporting Interventions in Real Time

Evaluation research is defined by Rossi (2013, pp. 109–110) as " applied social research. It consists essentially in the application of the repertory of social research methods to provide credible information that can aid in the information of public policy, in the design of programs, and in the assessment of the effectiveness and efficiency of social policies and social programs." However, this type of research is often criticized because it rarely produces results that are relevant to the context and of timely usefulness to the intervention (Glasgow & Emmons, 2007; Glasgow, Lichtenstein, & Marcus, 2003). DE responds particularly well to this criticism, since it accompanies the development of innovative programs in real time. Indeed, because it involves continuous feedback and is deeply embedded in the context, DE produces knowledge that constantly informs the innovators (Patton, 2006). According to Potvin, Bilodeau, and Gendron (2008), when evaluation supports innovative action and practices, the intervention process can be progressively adjusted as needed:

When designed as a reflective device for a system of organized action, evaluation produces knowledge that allows the action system to model more precisely its interactions with its environment, so that the actors acquire a better understanding of the relational systems linking the program and its context. This detailed understanding of the situations experienced enables the actors in the programs to work with the environment and find ways of resolving "on the spot" any controversies engendered by the action. (Authors' translation; Potvin, et al., 2008, p. 20)

Respecting Certain Fundamental Principles of Research Traditions

In fostering the participation and empowerment of the actors involved in the evaluative process, DE is aligned with health promotion research principles (Fassin, 2000; O'Neill & Stirling, 2006). In health promotion, empowerment and involvement are fundamental principles desirable not only for an intervention, but also for its evaluation, which should naturally involve all stakeholders and enable them to develop their own competencies in this area. As such, the DE

approach would appear to be strongly indicated in such circumstances. Indeed, as mentioned, DE is a utilization-focused approach that includes users in a meaningful way in the evaluation design, data collection and analysis (Patton, 2011, p. 13). Collaboration between the evaluator and the stakeholders most intimately and deeply involved with the evaluation should be based on participatory and dialogue-driven process that fundamentally respects the principles, values, and objectives of the organization and its actors. Moreover, because DE requires actors' active involvement in the evaluation, it fosters development of their capacities and transformation of their practices, through reflective processes that help them absorb the knowledge produced by the evaluation and react to that knowledge (Patton, 2008, 2011). "Helping people learn to think evaluatively can make a more enduring impact from an evaluation than use of specific findings generated in the same evaluation (…) the experience of being involved in an evaluation, then, for those actually involved, can have a lasting impact on how they think, on their openness to reality testing, on how they view the things they do, and on their capacity to engage in innovative process" (Patton, 2006, p. 28).

Application of DE in a Research Context: Two Illustrative Cases

Given the nature of DE and its potential advantages in research, the authors of this article decided to use the approach in two evaluation projects conducted in the field of health promotion research. In both cases, the authors assumed the role of evaluator–researcher. In the following section, we describe these two evaluative studies and how DE was applied in these contexts.

Case 1: Implementation of the Health Promoting Hospital (HPH) Concept

The first case illustrates an attempt to use DE to evaluate the implementation of a HPH project in a hospital setting, and more particularly, in a perinatal center (Figure 1). This project builds upon the 1986 World Health Organization (WHO) Ottawa Charter for Health Promotion, which positioned the reorientation of health care services as one of the five major areas of action for overall development of health promotion (Pelikan, Krajic, & Dietscher, 2001). In 1988, the HPH movement was launched and health organizations worldwide adopted the five HPH standards to achieve (1) a health-promoting organization, (2) health-promoting services (patient needs assessment, information, and interventions), (3) a health-promoting workplace, and (4) a health-promoting community surrounding the hospital (Gröne, Jorgensen, & Garcia-Barbero, 2004; Rey, Brousselle, & Dedobbeleer, 2012).

The intervention

In 2008, a Montreal area university hospital wanted to implement an HPH project. However, implementing a multidimensional and innovative project was challenging for the hospital's administration, whose first priority is the provision of curative and highly specialized care. The administration and its partners therefore decided to conduct an HPH pilot project in the

hospital's perinatal center. The project's objectives were to develop interventions aimed at (1) establishing a health promotion policy; (2) partnering with users to assess their health promotion needs; (3) incorporating health promotion knowledge and interventions in all service pathways; (4) developing a healthy workplace; and (5) collaborating continuously with other health care and community organizations.

The evaluation

An implementation analysis was proposed by the evaluator–researcher (L.R., the first author), and the proposal was accepted by members of the administration and managers at the perinatal center. The overall objective of the evaluation was to better understand and support implementation of an HPH project in the hospital setting. The specific objectives were to (1) assess the degree of implementation of the HPH project in the perinatal center based on HPH standards; (2) identify facilitating factors and constraints that could influence the implementation; and (3) support, through an iterative process, the development of the interventions planned as part of the project. Questionnaires related to the WHO's HPH standards were adapted to the implementation setting and administered to the actors directly involved in the implementation process. Documents related to the intervention were analyzed, and semistructured interviews were carried out with all the actors involved or affected by the implementation of the HPH concept in the hospital setting. To meet the needs of key users, the researcher decided to use a developmental approach for the implementation analysis. The evaluation process was launched in the winter of 2009, one year after the project had begun.

Rationale for using DE

The decision to use a developmental approach was driven by: (1) the complex nature of the intervention; (2) the innovative character of the project, and (3) a desire to support the development of activities with processes that would foster exchange and discussion among key users. All these elements fit within the developmental approach described by Patton (2008, 2011). In concrete terms, the developmental aspect of the evaluative approach consisted of integrating the researcher into the project team, so that she could monitor the progression of the activities, share knowledge with the users, and make recommendations based on the data collected and the analyses done. The researcher also planned several important meetings at each key step of her analyses, where the users would be able to discuss the results and see how the project was actually unfolding. These exchanges between the researcher and the team were geared toward supporting the intervention's implementation in real time.

Case 2: Implementation of a Health Promotion Professional Development Project

The second case illustrates the experience of applying DE to support the implementation of an innovative professional development project in health promotion (Figure 2).

The intervention

In 2009, a Regional Public Health Agency team drew up the outlines of a professional development project for multidisciplinary teams made up of professionals and managers in health and social services centers. The project's overall objective was to equip and support these teams, so they could develop and set up new health promotion interventions. More specifically, this project was aimed at (1) fostering the development of a reflective practice and of new professional competencies among professionals and (2) initiating organizational changes to encourage the adoption of new health promotion practices. The professional development program was intended to provide teams with a baseline operational approach that could then be adapted to each context and to those teams' needs.

The evaluation

Before the pilot project was implemented, its designers suggested incorporating an evaluative component to support the intervention's implementation and continuous improvement. Thus, a utilization-focused evaluation approach was proposed, with the second author (MCT) taking on the role of researcher. The main objective of the evaluation, as formulated, was to evaluate and support the health promotion professional development program. In line with this general objective, three specific objectives were targeted: (1) to analyze the program's intervention theory; (2) to describe and explain the contextual factors influencing the program's implementation; and (3) to describe and explain some of the impacts of the program on participants. To achieve this, the evaluation relied on participant observations at program meetings, focus groups and qualitative interviews with program participants, and analyses of logbooks and documents related to the project.

Rationale for using DE

A developmental approach was selected because the evaluation was intended to support and accompany the intervention's evolution, which is precisely what DE is designed to do. Given the experimental, dynamic, and adaptive nature of the program to be evaluated, a DE that could support exploration and innovation before any model was proposed to the program promoters, was relevant. The developmental aspect of the evaluative approach was included mainly to provide feedback about the form the project took in each sites as well as to identify the facilitators and resolve difficulties encountered in the implementation of the project (relating to the second specific objective of the evaluation). This developmental component was operationalized particularly by the researcher's integration into the project team and by frequent contact between the researcher and the team to share the data collected, the researcher's observations, and the results of analyses. This was done to ensure the evaluation would inform the program's progress in real time.

Both projects were highly innovative, and their key promoters had expressed the need for guidance and support in implementing the activities. The developmental approach was thus a natural choice, given the developmental character of the projects to be evaluated. Yet the application of DE in these two contexts encountered several challenges, due to the nature of the evaluation itself and to its use in research. These challenges ultimately threatened the developmental nature of the evaluation, and both cases ended with this approach being abandoned.

Challenges Presented by the Use of DE in Research

The experiences in these two cases highlighted three major challenges related to (1) links between research and evaluative objectives; (2) the dual role of consultant–evaluator and researcher; and (3) the temporality of the process.

Research Objectives Versus Evaluative Objectives

There were differences between the objectives of DE and those of the cases studied here. In both cases, the main objective of the evaluation was to support the implementation of interventions in health care organizations. Yet, these two evaluations also had to generate knowledge that could be use beyond the projects.

In the first case, the researcher was asked to provide immediate evidence needed by key users to support the implementation of the intervention. This involved, for instance, producing brief literature reviews on specific health promotion topics, developing questionnaires to assess patient satisfaction, and monitoring certain activities developed as part of the project. However, this sustained support to the intervention's implementation, and the resulting data, while contributing to the research objective, did not achieve the overall research objective. The promoters of the HPH concept had initially approved a research objective aimed at better understanding the process and the influence of context on the implementation of the HPH concept. The idea was to generate general knowledge that would be of use beyond the circumstances of the case at hand. This research objective did not always correspond to the users' expectations with regard to improving the intervention's implementation. In fact, the knowledge contribution objective goes further than just responding to the primary users' needs regarding real-time results.

This quandary was echoed in the second case, where the project team's need for feedback on obstacles to the intervention's implementation compelled the evaluator to collect data from the various actors (e.g., participants, project designers, etc.) that could be used to adjust the implementation. These data were not the same type of data required, from a theoretical standpoint, to analyze the influence of contextual factors on the intervention's implementation.

The data collection required for the theoretical analysis was much more inclusive and used other types of sources (e.g., 1-year post-implementation "balance sheet," logbooks of project team members) that were not necessarily available at the time the intervention was being implemented. Thus, the two data collections had to be carried out separately.

There is a fundamental distinction to be made between DE's objective of continuously informing, in real time, the development of a complex intervention, which is an action-oriented objective, and the research objective of analyzing data to generate a general explanation. Analyzing data to produce a theoretical account of the process of intervention adaptation and evolution is a different task than continually producing data to fuel an intervention's development.

The Evaluator's Dual Role

The authors' experiences were also marked by another challenge, related to taking on the dual role of researcher and consultant. The evaluator's role is generally a function of the ontological and epistemological positions adopted, which are operationalized particularly through the evaluator's stance in relation to the scope of stakeholders' participation, the relationship with decision makers, the degree of stakeholders' participation, and the stakeholders' responsibility in constructing the evaluation (Thiebaut, Brousselle, Contandriopoulos, Champagne, & Hartz, 2011).

In the cases under study, the imperatives of DE required that we take on the roles of consultants, guides and facilitators in order to support the development of the interventions. These roles are more in line with an expert consultant model, in which clients give the evaluator a specific mandate. The emphasis in that model is more on the needs expressed by the clients than on respecting the quality standards of the scientific community. In the broader framework of a participatory evaluation approach, such as utilization-focused evaluation, the expert consultant is also a facilitator who collaborates with the stakeholders throughout the entire evaluation process, including the technical components to maximize results use (Champagne, Contandriopoulos, & Tanon, 2011; Cook, 2006; Patton, 2006).

At the same time, as researchers, our role involved ensuring the rigor of the process while collaborating with stakeholders (Beywl, 2012; Cartland et al., 2008; Champagne et al., 2011; Scriven, 1976, 1996; Weiss, 1972). It is important to recognize that there is "a certain paradox between the pursuit of 'scientificity' in knowledge production … and the need to construct a judgment on an object" (Thiebaut et al., 2011, p. 14) [authors' translation], which explains why these two types of postures (consultant and researcher) are difficult to reconcile and often fluctuate along a continuum (Potvin et al., 2008).

In the first case under study (Figure 1), the author's position proved to be more one of university researcher than of expert consultant–facilitator. In fact, the project team drew clear distinctions between the mandates of researcher and consultant. While the researcher's role was to evaluate the project's implementation through a DE approach using specific research design and methods, the team hired a supplementary external consultant to support the development and implementation of activities (e.g., needs identification, evaluation of the activities implemented). The team presented the external consultant's mandate as complementing the evaluative research being conducted by the author, thereby leaving the author, as a researcher, few opportunities to drive implementation decisions. This situation suggested that the developmental evaluator role sought as part of the project had not been sufficiently clarified with the key users.

Nor was there an easy link between researcher and consultant roles in the second case (Figure 2). Given that the researcher had to both take part in the intervention's development and evaluate this intervention, she was put in the awkward position of being both judge (evaluator) and judged (as part of the intervention team). As such, she had to try to include in her evaluation the complex effects on the intervention's implementation of her own involvement as well as of the DE feedback system. In theory-based analysis, these could, in fact, be conceived as factors influencing the implementation of the intervention. The researcher status also greatly limited her integration into the team and her ability to establish a real relationship of confidence with them, which is essential for DE.

Temporality of the Process

Finally, in our experiences, we encountered a challenge having to do with the temporality of the process. We came to understand that the reflection time required for theoretical analysis is quite incompatible with the rapidity of factual feedback expected in DE. On one side are the researchers, who want to analyze and understand a particular situation, while on the other side, the actors on the ground are trying to resolve a given problem in record time (Potvin, 2007). The researchers must respect the rules of research rigor in collecting, interpreting, and analyzing data (Levin-Rozalis, 2003). Added to this constraint is the fact that there is not necessarily an end to a DE, whereas all research is characterized by objectives that presuppose both a beginning and an end to a process.

In the first case, for example, the researcher's integration into the setting was spread out over a year, during which none of the data anticipated in the research strategy were actually collected. During that year, the focus was on integrating into the setting and building a relationship of confidence with the users, mainly by responding to immediate needs related to the development of their activities. The collection of data to be used for research (questionnaires and semistructured interviews) only began in the summer of 2011, nearly a year and a half after

the launch of the evaluation process. Thus, there was a time lag between the production of real-time information and the research process.

The second case also faced a temporality challenge, in a different way. The analysis required to support the intervention's implementation had to be succinct and reactive to provide useful data in real time. This was not the case for the theoretical analysis carried out as part of a scientific study, which was much more extensive, took longer and, as mentioned earlier, used other types of data that were not necessarily available at the time of the intervention's implementation. Thus, the time frames of these two types of analyses did not coincide.

Discussion: Balancing DE's Advantages and Disadvantages in the Research Field

Given the challenges we encountered in using the DE approach for research, a second analysis of its potential advantages is relevant to assess the appropriateness of this approach in research. To what extent do the advantages of using this approach in research outweigh the difficulties related to its use? Are these advantages exclusive?

DE Allows the Evaluator to Adapt to the Imperatives of Complexity Inherent in Social Phenomena

As mentioned, DE is helpful for managing a significant portion of the complexity related to social interventions. For example, with DE the logic model of the intervention can be continuously updated to make adjustments as things progress and take into account emergent effects.

> Developmental programming calls for developmental evaluation in which the evaluator becomes part of a design team helping to monitor what's happening, both processes and outcomes, in an evolving, rapidly changing environment of constant feedback and change. These relationships can go on for years and, in many cases, never involve formal, written reports (…) Developmental evaluation isn't a model. It's a relationship founded on a shared purpose: development. (Patton, 1996a, p. 313)

However, for researchers, it is very constraining to work with no logic model—or one that is continuously evolving—and with objectives that are being changed and adjusted over the course of the intervention and with no theories supporting the intervention (Alkin, Vo, & Hansen, 2012; Greene, 2013; Miller, 2012; Torvatn, 2008). In the academic context, this approach is all the more difficult because the exercise most often calls for abstraction and meticulous work that culminate in a graphic representation of the intervention and its causal relationships with the problem it aims to solve (Levin-Rozalis, 2003).

DE Supports the Evolution of Interventions in Real Time

There is no doubt that DE's rapid and succinct feedback system helps guide the intervention's development in real time for the benefit of key users. However, the fact that the research process is necessarily lengthy and that its results are often produced from the analysis of outdated intervention models lessens the likelihood of research results being used by practitioners and others on the ground in real time (Huberman, 1987). This does not mean that research is incapable of producing data in real time. Some forms of action-research are, in fact, specifically geared toward producing such data. Researchers using that approach will study a problem or a situation analytically, then immediately apply what is learned to modify the situation (Hugon & Siebel, 1988; Robson, 2002). The action-research process aims to produce knowledge that can both help transform the situation under study and contribute to the body of knowledge on these realities (Hugon & Siebel, 1988). As such, this is a form of research that shares many of the features of DE—"good action research is developmental" (Elliott, 2005, p. 8)—and could teach us a lot about how to apply DE in research. Nevertheless, Patton (2011, p. 280) asserts that, in DE, "the focus must be on development, not just problem-solving, as some action research is." In this case, the DE approach might be more suitable for planning and implementing programs or to support organizational development (Poth, Pei, & Pinto, 2011).

DE Respects the Principles of Participation and Empowerment

DE allows for a particular form of collaboration between the project team and the evaluator, but this participatory process is only partial, as the evaluator occupies a distinctive position on the team (Weiss, 1979). Also, this advantage is not exclusive to DE, since there are other types of research that foster the empowerment and participation of all actors involved. One such example is participatory or collaborative research, which emphasizes power sharing between researchers and the community (Macaulay et al., 1999; Mason & Boutilier, 1996) and involves their reciprocal learning (Denis & Lomas, 2003).

Using DE in Research is Similar to Doing Action-Research

Using the DE approach in research is comparable in many ways to conducting action-research. Indeed, the action-research stream might provide some guidance on how to conceive of the role of the developmental evaluator and how to navigate between research and action. Somehow the developmental evaluator must assume the perspective of an actor–researcher, such that the reality of the situation is transformed by the evaluator's own conceptions and interpretations (Potvin, Bilodeau, & Gendron, 2011; Schwandt, 2005). "By its very nature and functioning, the approach will influence the intervention, much like the contextual factors" (Dubois et al., 2011, p. 4). The developmental evaluator therefore needs to adopt a reflective and relative epistemological stance (Hartz, 2011; Patton, 2002). Both the developmental evaluator and the actor–researcher are interventionists seeking to generate change in a group, an organization, or even a society (Alvesson, 2003; Dickens & Watkins, 1999). In both situations, the evaluator or

researcher becomes embedded in the action context and internalizes simultaneously the evaluation process and the action. Thus, the knowledge that emerges is the product of both research and action: " … [it] comes from the actor engaging in the experiential learning cycles of experiencing, reflecting, conceptualising and experimenting in real life situations" (Coghlan, 2007, p. 2). The particular lessons that can be drawn from action-research enable the developmental evaluator to reconcile the guide-facilitator role required by DE with the researcher's role as a knowledge producer.

Conclusion

In this article, we have explored the relevance of DE for research. Through two illustrative cases, we have demonstrated that there are advantages as well as challenges in using this approach in research through two illustrative cases.

On balance, using the developmental approach in research offers definite advantages for managing complexity and innovation. It allows the evaluator to adapt to the imperatives of complexity inherent in social phenomena. It also supports the evolution of interventions in real time and might be suitable to guide planning and implementation of programs or to support organizational development. In the two cases presented, the integration of the researchers into the project teams afforded us a comprehensive and deep understanding of the intervention and of its interaction with the context. We were also able to see that our collaboration with the project team, the feedback provided by the evaluation, and the adjustments it enabled resulted in fruitful processes. In this regard, DE is well suited to project planning, implementation, and organizational development.

Our analysis of two experiences of applying DE in research projects showed that the approach is certainly feasible but presents challenges related to linking research and evaluative objectives, the dual role of consultant–evaluator and researcher, and managing the temporality of the process to respond to both research requirements and users' expectations. In this regard, action-research may offer some guidance in conceiving of the developmental evaluator's role in research. The important thing to remember is that the specific nature of the developmental approach calls for recognition and understanding of the evaluator's distinct role, which is a function of the complex relationships between research objectives, strategies, and the stance adopted by the evaluator to deal with them. For the developmental approach to be feasible, each party needs to keep an open mind, so that the researcher can make judgments and the users can take action (Arendt, 1972; Contandriopoulos et al., 2012).

As Patton (2011, p. 1) has noted, many subtle aspects of DE as a useful and usable research approach in complex environments remain to be explored: "Evaluation has explored merit and worth, processes and outcomes, formative and summative evaluation; we have a good sense of

the lay of the land. The great unexplored frontier is evaluation under conditions of complexity." It would therefore be very worthwhile to consider DE in future research projects, not so much as a research strategy or approach, but rather as a research topic in itself, and especially across the spectrum of processes (e.g., collaborative processes, evaluative processes as tools for transformation, analysis of power relationships, decision-making processes, and the notion of reflectivity) that it generates.
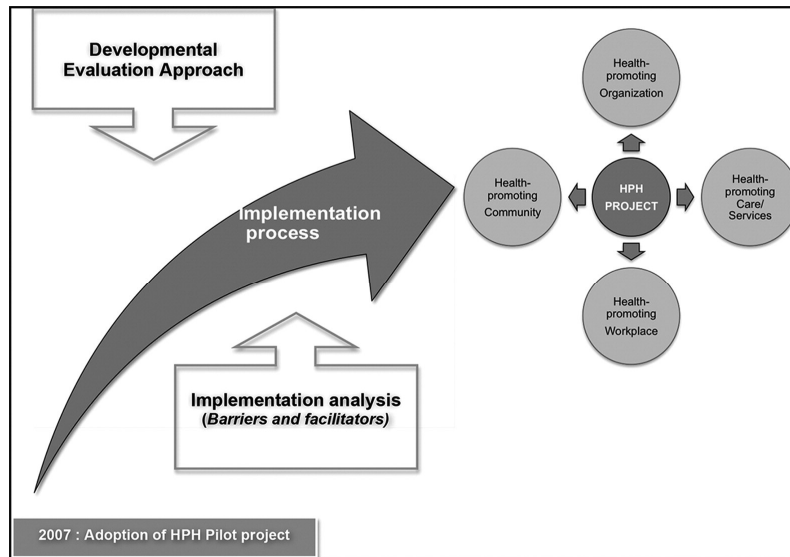
Figure 1

Figure 1. Evaluation of the implementation of the Health Promoting Hospital (HPH) concept using DE approach.

Figure 2
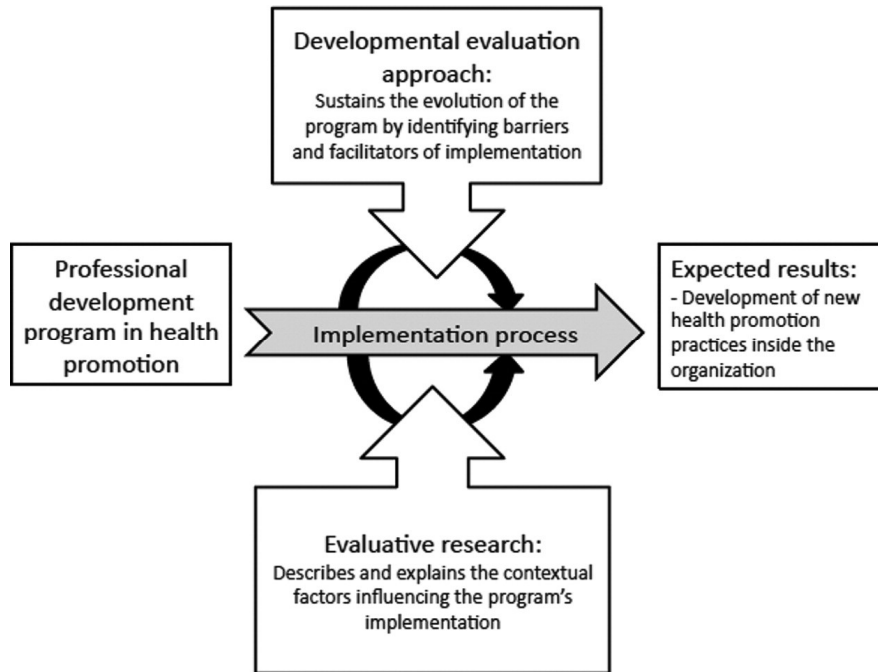
Figure 2. Evaluation of the implementation of a Health Promotion Professional Development Project using DE approach.

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References

Alkin, M. C., Christie, C. A. (2005). Theorists' models in action. San Francisco, CA: Jossey-Bass.

Alkin, M. C., Vo, A. T., Hansen, M. (2012). Using logic models to facilitate comparisons of evaluation theory. Evaluation and Program Planning, 38, 1–88. doi:10.1016/j.evalprogplan.2012.03.011

Alvesson, M. (2003). Methodology for close up studies—Struggling with closeness and closure. Higher Education, 46, 167–193.

Arendt, H. (1972). La crise de la culture: huit exercices de pensée politique. Paris, France: Gallimard.

Beywl, W. (2012). The evolutive role of evaluation: Just another choice or a unique stance? Evaluation and Program Planning, 35, 219–221. doi:10.1016/j.evalprogplan.2011.10.004

Brousselle, A., Champagne, F., Contandriopoulos, A.-P., Hartz, Z. (2011). L'évaluation: concepts et méthodes (2nd ed.). Montreal, Canada: Presses de l'Université de Montréal.

Campbell, M., Patton, M. Q., Patrizi, P. (2003). Changing stakeholder needs and changing evaluator roles: The Central Valley Partnership of the James Irvine Foundation. Evaluation and Program Planning, 26, 459–469. doi:10.1016/s0149-7189(03)00062-4

Cartland, J., Ruch-Ross, H. S., Mason, M., Donohue, W. (2008). Role sharing between evaluators and stakeholders in practice. American Journal of Evaluation, 29(4), 460–477.

Champagne, F., Contandriopoulos, A.-P., Tanon, A. (2011). Utiliser L'évaluation. In Brousselle, A., Champagne, F., Contandriopoulos, A.-P., Hartz, Z. (Eds.), L'évaluation: Concepts et méthodes (2nd ed., pp. 277–308). Montreal, Canada: Presses de l'Université de Montréal.

Cherniss, C., Fishman, D. B. (2004). The Mesquite "MicroSociety" school: Identifying organizational factors that facilitate successful adoption of an innovative program. Evaluation and Program Planning, 27, 79–88.

Cloutier, J. (2003). Qu'est-ce que l'innovation sociale? Cahier du CRISES—Collection Études théoriques No. ET0313. Montréal, Canada: Centre de recherches des innovations sociales (CRISES).

Coghlan, D. (2007). Insider action research doctorates: Generating actionable knowledge. Higher Education, 54, 293–306. doi:10.1007/s10734-005-5450-0

Contandriopoulos, A.-P., Rey, L., Brousselle, A., Champagne, F. (2012). Évaluer une intervention complexe: enjeux conceptuels, méthodologiques, et opérationnels. Canadian Journal of Program Evaluation, 26, 1–16.

Cook, T. (2006). Collaborative action research within developmental evaluation. Evaluation, 12, 418–436. doi:10.1177/1356389006071293

Denis, J.-L., Lomas, J. (2003). Convergent evolution: The academic and policy roots of collaborative research. Journal of Health Services Research & Policy, 8, 1–6. doi:10.1258/135581903322405108

Dickens, L., Watkins, K. (1999). Action research: Rethinking Lewin. Management Learning, 30, 127–140. doi:10.1177/1350507699302002

Dozois, E., Langlois, M., Blanchet-Cohen, N. (2010). DE 201: Guide du praticien de l'évaluation évolutive. Montreal, Canada: J. W. McConnell Family Foundation, International Institute for Child Rights and Development, University of Victoria.

Dubois, N., Lloyd, S., Houle, J., Mercier, C., Brousselle, A., Rey, L. (2011). Practice-based evaluation as a response to address intervention complexity. Canadian Journal of Program Evaluation, 26, 105–115.

Elliott, J. (2005). Action research. In Mathison, S. (Ed.), Encyclopedia of evaluation (pp. 8–10). Thousand Oaks, CA: Sage.

Fagen, M. C., Redman, S. D., Stacks, J., Barrett, V., Thullen, B., Altenor, S., Neiger, B. L. (2011). Developmental evaluation: Building innovations in complex environments. Health Promotion Practice, 12, 645–650. doi:10.1177/1524839911412596

Fassin, D. (2000). Comment faire de la santé publique avec des mots. Une rhétorique à l'œuvre. Ruptures, 7, 58–78.

Fournier, D. M. (2004). Evaluation. In Mathison, S. (Ed.), Encyclopedia of evaluation (pp. 139–140). Thousand Oaks, CA: Sage.

Gamble, J. A. (2008). A developmental evaluation primer. Montreal, Canada: The J. W. McConnell Family Foundation.

Glasgow, R. E., Emmons, K. M. (2007). How can we increase translation of research into practice? Types of evidence needed. Annual Review of Public Health, 28, 413–433. doi:10.1146/annurev.publhealth.28.021406.144145

Glasgow, R. E., Lichtenstein, E., Marcus, A. (2003). Why don't we see more translation of health promotion research to practice? Rethinking the efficacy-to-effectiveness transition. American Journal of Public Health, 93, 1261–1267.

Greene, J. C. (2013). Logic and evaluation theory. Evaluation and Program Planning, 38, 71–73. doi:10.1016/j.evalprogplan.2012.03.017

Gröne, O., Jorgensen, S. J., Garcia-Barbero, M. (2004). Standards for health promotion in hospitals. Self-assessment tool for pilot implementation. Copenhagen, Denmark: WHO Regional Office for Europe.

Hartz, Z. (2011). Creating a dialogue between the concepts of complexity paradigms and the pragmatic approaches proposed for evaluating complex interventions. Canadian Journal of Program Evaluation, 26, 115–119.

Huberman, M. (1987). Steps toward an integrated model of research utilization. Knowledge: Creation Diffusion Utilization, 8, 586–611.

Hugon, M. A., Siebel, C. (1988). Recherches impliquées—Recherche-action: le cas de l'éducation. Brussels, Belgium: De Boeck-Wesmail.

Jacob, S. (2010). Évaluation. In Boussaguet, L., Jacquot, S., Ravinet, P. (Eds.), Dictionnaire des politiques publiques (pp. 201–208). Paris, France: Les Presses de Sciences Po.

Levin-Rozalis, M. (2003). Evaluation and research: Differences and similarities. Canadian Journal of Program Evaluation, 18, 1–31.

Macaulay, A. C., Commanda, L. E., Freeman, W. L., Gibson, N., McCabe, M. L., Robbins, C. M., Twohig, P. L. (1999). Participatory research maximises community and lay involvement. North American primary care research group. British Medical Journal, 319, 774–778.

Mason, R., Boutilier, M. (1996). The challenge of genuine power sharing in participatory research: The gap between theory and practice. Canadian Journal of Community Mental Health, 15, 145–152.

Miller, R. L. (2012). Logic models: A useful way to study theories of evaluation practice? Evaluation and Program Planning, 38, 77–80. doi:10.1016/j.evalprogplan.2012.03.019

Nutbeam, D. (1999). Evaluating health promotion. British Medical Journal, 318, 404A.

O'Neill, M., Stirling, A. (2006). Travailler à promouvoir la santé ou travailler en promotion de la santé? In O'Neill, M., Dupéré, S. A., Rootman, I. (Eds.), Promotion de la santé au Canada et au Québec. Perspectives critiques (pp. 42–61). Quebec, Canada: Presses de l'Université Laval.

Patton, M. Q. (1994). Developmental evaluation. American Journal of Evaluation, 15, 311–319. doi:10.1177/109821409401500312

Patton, M. Q. (1996a). A world larger than formative and summative. American Journal of Evaluation, 17, 131–144. doi:10.1177/109821409601700205

Patton, M. Q. (1996b). Utilization-focused evaluation: The new century text (3rd ed.). Thousand Oaks, CA: Sage.

Patton, M. Q. (1999). Organizational development and evaluation. The Canadian Journal of Program Evaluation, Special Issue, 93–114.

Patton, M. Q. (2002). Qualitative research and evaluation methods (3rd ed.). Thousand Oaks, CA: Sage.

Patton, M. Q. (2006). Evaluation for the way we work. The Non-Profit Quarterly, 13, 28–33.

Patton, M. Q. (2008). Utilization-focused evaluation (4th ed.). San Francisco, CA: Sage.

Patton, M. Q. (2011). Developmental evaluation: Applying complexity concepts to enhance innovation and use. New York, NY: Guilford.

Pelikan, J., Krajic, K., Dietscher, C. (2001). The Health Promoting Hospital (HPH): Concept and development. Patient Education and Counseling, 45, 239–243.

Poth, C., Pei, J., Pinto, D. (2011). Integrating developmental evaluation within organizational culture. In Barton, S. M., Hedberg, J., Suzuki, K. (Eds.), Proceedings of global learn 2011 (p. 778). Chesapeake, VA: Association for the Advancement of Computing in Education.

Poth, C. A., Pinto, D., Howery, K. (2011). Addressing the challenges encountered during a developmental evaluation: Implications for evaluation practice. Canadian Journal of Program Evaluation, 26, 39–48.

Potter, C., Naidoo, G. (2009). Evaluating large-scale interactive radio programmes. Distance Education, 30, 117–141.

Potvin, L., Bilodeau, A., Gendron, S. (2008). Trois defis pour l'evaluation en promotion de la sante. Promotion & Education, 15, 17–21. doi:10.1177/1025382308093991

Potvin, L., Bilodeau, A., Gendron, S. (2011). Trois conceptions de la nature des programmes: implications pour l'évaluation de programmes complexes en santé publique. Canadian Journal of Program Evaluation, 26, 91–104.

Potvin, L., Goldberg, C. (2006). Deux rôles joués par l'évaluation dans la transformation de la pratique en promotion de la santé. In O'Neill, M., Dupéré, S., Pederson, A., Rootman, I. (Eds.), Promotion de la santé au Canada et au Québec, perspectives critiques (pp. 457–473). Quebec, Canada: Presses de l'Université Laval.

Potvin, P . (2007). De la recherche à la pratique, de la pratique à la recherche. Mini-colloque, Maîtrise en psychoéducation, Trois-Rivières, Quebec, Canada, April 19, 2007. Retrieved May 30, 2013, from http://www.pierrepotvin.com/6.%20Publications/Conf%20ma%C3%AEtrise-19%20avril-07.pdf

Preskill, H., Russ-, Eft. (2005). Building evaluation capacity: 72 activites for teaching and training. Thousand Oaks: CA: Sage.

Rey, L., Brousselle, A., Dedobbeleer, N. (2012). Logic analysis: Testing program theory to better evaluate complex interventions. Canadian Journal of Program Evaluation, 26, 61–89.

Robson, C. (2002). Real world research: A resource for social scientists and practitioner-researchers (2nd ed.). Oxford, England: Blackwell.

Rootman, I., Goodstadt, M., Hyndman, B., McQueen, D. V., Potvin, L., Springett, J., Ziglio, E. (2001). Evaluation in health promotion, principles and perspectives. Copenhagen, Denmark: World Health Organization.

Rossi, P. H. (2013). My views of evaluation and their origins. In Alkin, M. C. (Ed.), Evaluation roots: A wider perspective of theorists' views and influences (2nd ed., pp 106–112). Thousand Oaks, CA: Sage.

Saari, E., Kallio, K. (2011). Developmental impact evaluation for facilitating learning in innovation networks. American Journal of Evaluation, 32, 227–245.

Schwandt, T. A. (2005). The centrality of practice to evaluation. American Journal of Evaluation, 26, 95–105.

Scriven, M. (1976). Evaluation bias and its control. In Glass, G. V. (Ed.), Evaluation studies review annual (pp. 101–118). Beverly Hills, CA: Sage.

Scriven, M. (1996). Types of evaluation and types of evaluator. Evaluation Practice, 17, 151–161.

Thiebaut, G.-C., Brousselle, A., Contandriopoulos, A.-P., Champagne, F., Hartz, Z. (2011). Positionner l'évaluateur face aux enjeux de l'évaluation. In Brousselle, A., Champagne, F., Contandriopoulos, A.-P., Hartz, Z. (Eds.), L'évaluation: concepts et méthodes (2nd ed., pp. 11–23). Montreal, Canada: Presses de l'Université de Montréal.

Torvatn, H. (2008). Book review: Logic modeling methods in program evaluation, J.A. Frechtling. Wiley, Inc., Jossey-Bass, San Francisco (2007). Evaluation and Program Planning, 31, 219–221. doi: 10.1016/j.evalprogplan.2008.01.002

Tremblay, M. C., Richard, L. (2011). Complexity: A potential paradigm for a health promotion discipline. Health Promotion International. Retrieved from: http://heapro.oxfordjournals.org.acces.bibl.ulaval.ca/content/early/2011/09/07/heapro.dar054 .short. doi:10.1093/heapro/dar054

Weiss, C. H. (1972). Evaluating action programs: Readings in social action and education. Boston, MA: Allyn & Bacon.

Weiss, C. H. (1979). The many meanings of research utilization. Public Administration Review, 39, 426–431.

Zimmerman, B. J., Dubois, N., Houle, J., Lloyd, S., Mercier, C., Brousselle, A., Rey, L. (2011). How does complexity impact evaluation? An introduction to the special issue. Canadian Journal of Program Evaluation, 26, V–XX. Retrieved from http://www.medsp.umontreal.ca/IRSPUM_DB/pdf/26691.pdf