

Developmental evaluation: Lessons for evaluative practice from the SEARCH Program

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Rumona Dickson

Liverpool Reviews and Implementation Group, University of Liverpool, UK

Murray Saunders

Centre for the Study of Education and Training, Lancaster University, UK

Abstract

This article presents the results of a retrospective case study that critically examined the use of evaluation within a continuing professional development programme for healthcare professionals (SEARCH). The study explored the extent to which a developmental evaluation approach was taken within SEARCH. The results demonstrate that SEARCH was a complex, innovative and evolving programme functioning in a complex and changing healthcare system. Evaluation processes used within SEARCH were developmental in nature and informed substantive programme changes. The extent of the changes went beyond what would be expected following standard formative or summative evaluation and fit with the concepts and use of developmental evaluation as articulated by Patton. This study demonstrates that even though staff and faculty did not call their assessments developmental evaluation, this is in fact what they were doing and the results informed future SEARCH development and evaluation.

Keywords

continuing professional development, developmental evaluation

Introduction

The concepts in Michael Quinn Patton's book on developmental evaluation (Patton, 2011) have been met with mixed reviews but are starting to be tested in practice (Lam, 2011). Experienced evaluators may comment: 'This is nothing new – it is what I have always done.'

Corresponding author:

Rumona Dickson, Liverpool Reviews and Implementation Group, Whelan Building, The Quadrangle, University of Liverpool, Liverpool L69 3GB, UK.

Email: rdickson@liv.ac.uk

However, individuals working with evaluation programmes that struggle in complex and changing environments have been more welcoming and recognize the limitations of standard evaluation practices (Dozois et al., 2010; Gamble, 2008).

The case study that forms the basis for this article is a retrospective analysis of documents and evaluations conducted within an innovative continuing professional development (CPD) programme for healthcare professionals in Alberta, Canada (The Swift, Efficient Application of Research in Community Health Program which came to be known as SEARCH). SEARCH was selected for two reasons. The first was that access was available to SEARCH faculty and historical documents, and, more importantly, unlike the majority of CPD programmes, SEARCH had been extensively evaluated with evaluations conducted at session, module, cohort and programme levels. We argue that the staff, faculty and evaluators in SEARCH worked within an evaluative culture and that their approach to evaluation led to significant changes to an innovative model of delivery of CPD. These were changes beyond what would be expected from formative evaluation and indeed, though not described as such, were developmental evaluation.

Developmental evaluation

Developmental evaluation was introduced by Patton (2008) in his discussion of the concepts of utilization-focused evaluation, which was first presented in the late 1980s and further developed in a rebuttal (Patton, 1996) to Scriven's published description of the roles of formative and summative evaluation (Scriven, 1991). Over time Patton has worked with numerous stakeholders to define the concepts of developmental evaluation, and the first publication dedicated to it was made available following a two-year iterative process that was the result of a number of workshops with voluntary organizations in Canada (Gamble, 2008).

Patton's thoughts in relation to developmental evaluation (Patton, 2011) evolved from situations in which formative or summative evaluation did not fit the needs of the programmes being evaluated. However, a clear definition of developmental evaluation is broad and some might say elusive. Patton (2011: 36) writes that 'it guides action and adaptation in innovative initiatives facing high uncertainty'.

It is therefore perhaps more helpful to examine the kinds of situations in which developmental evaluation could be considered. Gamble (2008) describes these as situations where there is high complexity and the innovations are taking place in a new or early stage of social innovation. The application of developmental evaluation is therefore limited and is described as a process to support innovation within evolving programmes and institutions. Patton's (2011) proposed purposes and uses of developmental evaluation are outlined in Table 1.

Developmental evaluation versus traditional evaluation

One could argue that developmental evaluation is really no different from traditional summative or formative evaluation where evaluation techniques are used and then changes are made to the target programmes or institutions. However, Patton (2011) contends that there are significant differences.

In terms of purpose and situation, Patton envisions traditional evaluations being conducted to improve or validate existing programmes within relatively stable environments: to see

Table 1. Purposes and uses of developmental evaluation.

Purpose	Use
Ongoing development	To adapt an innovative initiative to new conditions in complex dynamic systems
Adapting effective general principles	The use of ideas or innovations taken from elsewhere to be developed in a new setting
Developing a rapid response	In cases of major change or crisis used to explore real-time solutions and innovations
Performative development of potentially scalable innovation	The use of evaluation to bring innovative programmes to the stage of being ready for formative or summative evaluation
Major systems change and cross-scale developmental evaluation	Providing feedback regarding the evolution of major change and how this might impact on the broader dissemination of a project (horizontal and vertical scaling)

Source: Adapted from Patton (2011: 21–22)

whether a programme is working and perhaps to fine-tune it. Developmental evaluation, he argues, is designed to support innovations in complex and dynamic environments, with the primary purpose of exploring possibilities and experimenting with innovations without the goal of arriving at a fixed intervention. Situations in which developmental evaluation would be used are those where the approach to implementation is similar to what Peters and Waterman (1982) refer to in the management literature as ‘ready, fire, aim’ as opposed to the standard programme implementation of ‘ready, aim, fire’.

The roles and relationships in traditional evaluation can vary significantly. However, Patton (2011) describes the traditional role of the evaluator as independent, focused outward (toward external authorities) with functions delegated to the organization. He sees the developmental evaluation evaluator as a collaborator and facilitator whose purpose it is to introduce concepts of evaluative thinking. Accountability is to the programme or institution being evaluated, with a focus on the programme and the environment in which it is situated.

However, the key difference in developmental evaluation is the acceptance of the complexity of the situation. In traditional evaluation, Patton describes the evaluator as controlling the design, implementation and outcome of the process within the context of predictability and certainty. In developmental evaluation, the evaluator expects uncertainty and unpredictability and, from this perspective, there is a need to remain mindful of the evolution of the programme being evaluated and to respond to those changes (Gamble, 2008).

SEARCH – Perspective and history

CPD has historically been a mandatory part of the practice of all healthcare professionals (Murphy et al., 2006). However, the introduction of evidence-based practice (EBP) in the late 1980s led to a shift in the focus, content and delivery of such programmes. There was an identified need for these programmes to include not just the findings of current relevant research, but also to provide health professionals with the opportunities to develop the skills necessary to identify, quality appraise, synthesize and, where appropriate, incorporate the relevant research findings into health policy and clinical practice.

A number of CPD models were in use at this time, including full- and part-time delivery, credit and non-credit. However, as in other areas of education, few of these models had been formally evaluated and none had been designed to deliver the content required to meet the requirements of EBP (Hamer and Collinson, 2005). In the mid-1990s a leader in this field in Alberta, Canada, took on the challenge of developing, delivering and evaluating an innovative CPD model to address these issues, with a programme designed to meet both individual and provincial healthcare delivery needs. SEARCH was a partnership programme that included collaboration between the Alberta Heritage Foundation for Medical Research (AHFMR), regional and provincial authorities, universities and government. The Program was designed to support healthcare planning and management decisions as well as to provide an opportunity to develop local expertise for collaborative applied health research.

Participants were recruited to SEARCH from health regions and authorities in Alberta; these agencies served as collaborators and sponsors of the participants. Methods of participant selection varied between the sponsors (open competition, volunteers, appointment). The sponsorship commitment of the employers included the release of SEARCH participants for attendance at residential teaching modules, the conduct of one internal project and collaborating on one joint provincial project with other SEARCH participants. The Program content focused on the three inter-related components of choosing, creating and using research. A total of 25 participants were recruited for each two-year SEARCH cohort and attended up to seven one week long residential modules. Six cohorts (numbered I–VI) completed SEARCH.

A decision was taken early in the development of SEARCH to provide access to the most up-to-date computer technologies and to support students in their use of such technologies. This included individual laptop computers and Internet access. Use of such technologies would be automatic today, but in 1996 this was very innovative; the students were using technologies that were not available in the institutions in which they were working and a number of SEARCH participants in the first two cohorts were the only health professionals in their health regions with access to the Internet at work.

SEARCH sponsors, faculty and students were committed to evaluation. An evaluation framework was in place at the inception of SEARCH in 1996 and was revised in 2001 when an 'evaluation blueprint' was developed that established the evaluation plan for the following 15 years (Birdsell and Mathias, 2001). This framework clearly demonstrated a commitment for evaluation to be broad and to include the impact on students, faculty, health organizations and the provincial health system.

Methods

This case study included two components. The first was a quantitative analysis of SEARCH evaluations that was carried out using the criteria from the Joint Committee on Standards for Educational Evaluation (1994). The results of this analysis are available elsewhere (Dickson, 2012). The second was qualitative and was designed to assess SEARCH evaluations and documents in order to retrospectively determine whether the evaluation activities were consistent with the developmental evaluation paradigm.

Documents included SEARCH Steering Committee and SEARCH Evaluation Committee meeting minutes for the period of 2000 to 2005. The first of these dates was selected for pragmatic reasons – there were no electronic records available prior to this time. The second date

Table 2. Qualitative coding categories.

Code	Code definition	Purpose
Environment		
Integration – Healthcare System	Any description of linkages with health authorities	Evidence of the complex and evolving world in which SEARCH and SEARCH participants worked
Integration – AHFMR	Description of integration/relationship with AHFMR and AHFMR goals	Evidence of links/integration with host organization
Relationship – Faculty	Any description of faculty roles and role changes within SEARCH or within their institutions	Evidence of evolving Program links with faculty
Evaluative practice		
Approach	Any description of the general approach taken to evaluation	Evidence of a wide range of evaluative practices
Culture	Any comments related to the importance and role of evaluation	Evidence of the value placed on evaluation
Use	Any description of the attitudes to evaluation outcome and use	Evidence of the use of evaluation in SEARCH development and delivery
Program innovation		
Program changes	References to changes made in Program curriculum, delivery, faculty, etc.	Evidence of the evolution in SEARCH delivery

AHFMR: Alberta Heritage Foundation for Medical Research.

represents the point at which SEARCH changed its structure and was independent of the AHFMR.

All meeting minutes and documents were first read to provide an overview of the evolution of SEARCH. The documents were then examined more closely and data were extracted using ATLAS.ti (ATLAS.ti Scientific Software Development GmbH, Berlin, Germany), a qualitative data analysis and research software.

Qualitative data extraction

Qualitative data were extracted from SEARCH documents. A qualitative directed content analysis approach was used (Krippendorff and Bock, 2009) to address three issues. These were:

- To provide supportive evidence that SEARCH was functioning in a complex environment that required working collaboratively with a variety of stakeholders
- To demonstrate that the administrators, faculty and SEARCH committees had an embedded evaluative culture
- To investigate whether the changes that were made in SEARCH were dramatic enough to be considered within developmental evaluation as opposed to less significant changes that you would expect with standard evaluation.

Data were extracted in these three categories using seven codes (Table 2). The codes relating to the complex environment were linked to integration with the healthcare system, the

AHFMR and SEARCH faculty. Codes relating to evaluative culture included evaluation approaches, culture and use. The final and largest code related to innovations in SEARCH, and was used to identify evidence that the changes that were implemented were in fact developmental.

Results

Complexity and the SEARCH Program

Prior to making a decision regarding the appropriateness of using the developmental evaluation lens to examine the evaluation processes it was necessary to determine whether SEARCH fit the pre-requisites of being complex, evolving and innovative. Analysis of this was done from two perspectives, Patton's (2011) complexity concepts and the Stacey matrix (2002).

Table 3 presents Patton's concepts of complexity and information regarding SEARCH, demonstrating that it meets Patton's description of complexity.

The second perspective is through the Stacey complexity matrix (2002) to determine whether SEARCH was functioning in what is referred to as the 'zone of complexity'.

The Stacey matrix

The Stacey matrix emerged from the management literature as a decision tool (Stacey, 2002). The matrix examines two aspects of decision making: certainty and agreement (Figure 1). The horizontal axis shows the level of certainty about the appropriateness of the current course of action – that is, we have experiential knowledge that the current plan of action will cause an anticipated result. In the case of SEARCH, there was no certainty that the proposed approach would meet the established goals or the requirements of the health authorities. There was evidence from the success of the INCLEN programme (International Clinical Epidemiology Network, 2010) on which SEARCH was initially based, that such a teaching/mentoring model had worked in the field of international clinical epidemiology – but EBP was a much more uncertain area and therefore the results could not be predicted.

The vertical axis deals with the agreement across those involved about the desired outcomes. There was agreement that providing the best patient care was paramount; however, there was very limited agreement about how this could be accomplished or indeed measured. In fact the various members of the healthcare community were only just beginning to come together to discuss the issues.

Therefore, in terms of the Stacey complexity matrix SEARCH demonstrated both uncertainty and a lack of agreement of process and outcomes and so would be considered to be operating in the area requiring 'complex decision making'.

This analysis was deemed sufficient evidence that SEARCH was a complex programme and was being established in a complex environment. However, it did not demonstrate that the use of developmental evaluation would have been appropriate. Gamble (2008) proposes a set of questions to be addressed to determine whether an environment is appropriate for the use of developmental evaluation. These are presented in Table 4, and include the perspective of SEARCH.

Given this evidence, it is clear that SEARCH was innovative, evolving and functioning in a complex environment. Comparison with Gamble's questions also demonstrates that SEARCH meets the criteria for consideration of the use of developmental evaluation.

Table 3. Evidence-based practice and SEARCH as complex environments.

Complexity concepts	Description*	SEARCH
Nonlinearity	Sensitivity to initial conditions; small changes have major impact (e.g. movement of butterfly wings)	SEARCH was sensitive to concerns about whether health authorities would accept staff capacity development as a way to implement the EBP agenda It was clear that some health authorities were moving more quickly than others and it was not possible to predict even within them which clinical areas would see a need for staff development
Emergence	Patterns emerging from self-organization among interacting agents	SEARCH development was emergent – although based on the concepts of INCLEN (International Clinical Epidemiology Network, 2010) it nonetheless needed to evolve its own curriculum, faculty and method of delivery. This required the establishment of new relationships with both the health authorities and the universities from which faculty were recruited
Dynamic	Interactions between and among subsystems which may be volatile, turbulent, cascading rapidly, and unpredictable	The evolution of SEARCH itself was dynamic and changing on a number of fronts (curriculum, program delivery, faculty) In addition significant changes in the structure of the healthcare services were made during the period of SEARCH
Adaptive	Interacting elements and agents respond and adapt to each other	The movement of SEARCH participants in and out of SEARCH and their health authorities required constant adaptation on the part of organizations, participants, faculty
Uncertainty	Processes and outcomes are unpredictable	There was constant uncertainty as to the reactions of those in the health authorities to outcomes of both the implementation of EBP and SEARCH. The changing delivery of the SEARCH curriculum also meant that responses of participants remained uncertain
Co-evolutionary	Interactive and adaptive agents evolve together within and as part of the whole system	Both the healthcare system and SEARCH systems were evolving individually and together

EBP: evidence-based practice.

*Adapted from Patton (2011: 8).

Qualitative data analysis

Environment

Healthcare system. Introducing the use of best evidence into the delivery of healthcare services was not, and is not, a straightforward matter. In addition, the province of Alberta is geographically large and at the time was divided into a number of different health regions. The number of regions varied over time – 17 regions at inception of SEARCH, reduced to nine regions during SEARCH III and ultimately to one during 2009. Each of these regions had different population needs and varying management approaches.

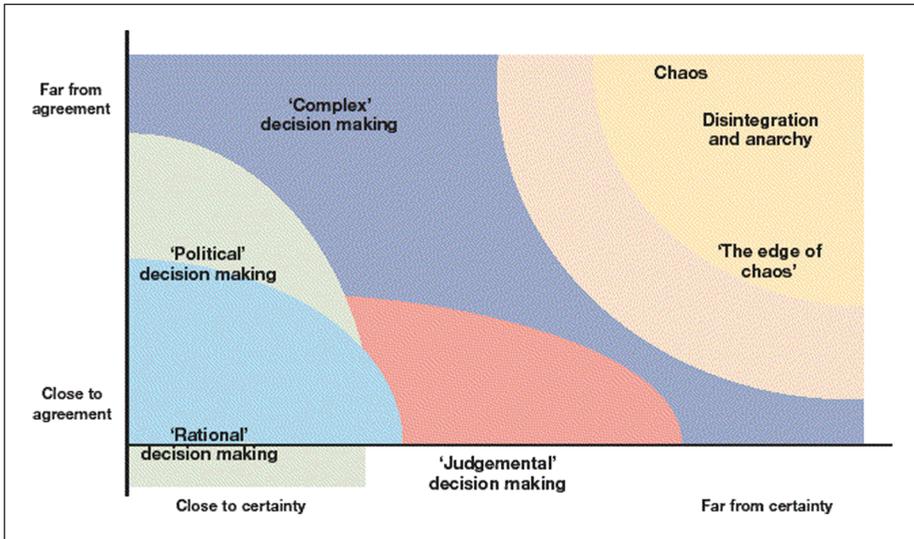


Figure 1. Stacey complexity matrix.
Adapted from Stacey (2002).

The relationship between SEARCH and the healthcare system evolved over time. Initial contacts were made by the director of AHFMR and then later the SEARCH director. The initial contacts were at the level of the Chief Executive Officer (CEO). It was initially felt that a CEO from the health region would provide the supervision of SEARCH participants. As a natural progression it was also assumed that at least one CEO would be on SEARCH Steering Committee.

However, as SEARCH evolved it was recognized that the CEO was too far removed from SEARCH participants and that their supervision should change as well as the role of the appointee on the Steering Committee:

It was agreed that SEARCH participants do not have to be in a direct reporting relationship to their CEO. (SEARCH Steering Committee Minutes 0900)

The committee discussed effective membership and endorsed the importance of senior Regional Health Authority (RHA) executive representation, while acknowledging that CEOs may not be the only appropriate participant. (SEARCH Steering Committee Minutes 0888)

This issue also affected how SEARCH participants were recruited. Initially it had been done at the level of the CEO. However, as the quote below indicates this changed.

Concern was expressed that, if organizations had to jump through too many hoops early in the process of joining SEARCH, this might act as a deterrent. A facilitated discussion with the organization, followed by a letter of understanding might work better. Issues should be discussed with the participant's supervisor or an appropriate liaison to the CEO as it will be the people in the organization closest to the participant who will need to provide the most support. The CEO, however, must be kept informed and be supportive of the process. (SEARCH Steering Committee Minutes 0900)

Table 4. Gamble's environment questions.

Question and rationale	SEARCH perspective
<p>1. <i>What is driving the innovation?</i> Developmental evaluation is particularly appropriate if an organization expects to develop and modify a programme over the long term because of constantly shifting needs and/or contexts</p>	SEARCH initiators were certain that the process would evolve over time and that the environment in which EBP was being implemented was uncertain and changing
<p>2. <i>Are the proposed changes and innovations aimed at deep and sustained change?</i> Developmental evaluation is aimed at innovations that are driving towards transformational changes</p>	The implementation of EBP was a transformational change in healthcare delivery and could be termed a paradigm shift. As a model for CPD delivery, SEARCH was also innovative and underwent significant transformational changes over time
<p>3. <i>Do we have a collaborative relationship with another organization in which there is innovative potential in combining our respective talents?</i> Developmental evaluation may help different organizations work together through the effort to innovate</p>	Collaborations were developed with educational institutions, the regional health authorities as well as other health boards (e.g. Mental Health Board) and institutions. The requirement of individual and group projects within SEARCH required collaboration across all these groups and with SEARCH participants
<p>4. <i>Under what conditions does the organization currently innovate?</i> Is innovation part of the culture of the organization? If this is already part of the culture, then the developmental evaluation role may be one that people within the team already play. If there is not a culture of innovation but there is a commitment to build one, then developmental evaluation may be helpful in stimulating this process</p>	SEARCH itself was an innovation. It was accepted from the inception of SEARCH that ongoing evaluation and innovation would be part of the SEARCH Program
<p>5. <i>Are there core elements of what we do that we don't want to change?</i> There may be elements of an initiative that are known to work, or for another reason are expected to stay the same. Evaluation requires resources, and if things will not change, these resources are better directed elsewhere</p>	There was an open acceptance that all aspects of SEARCH were open to evaluation and change. Some more than others – e.g. the three themes of teaching were relatively unchanged over time but all other aspects of SEARCH promotion and delivery changed over time
<p>6. <i>Is it clear for whom the evaluation is intended?</i> For an organization to make good use of developmental evaluation, it is important to have key decision makers interested in and open to using evaluative feedback to shape future actions. If the only user of the evaluation is external to the innovating team (such as a funder), then developmental evaluation is probably not the appropriate approach</p>	The evaluations were done to inform the future development of the Program and to inform all stakeholder (participants, faculty, AHFMR and health authorities).

AHFMR: Alberta Heritage Foundation for Medical Research; CPD: continuous professional development; EBP: evidence-based practice.
Adapted from Gamble (2008).

The quote also demonstrates the balance that was required to facilitate health authority participation and the need for ongoing communication with local leaders. This also changed over time as the role of SEARCH projects changed and decisions regarding projects were taken jointly by the health authority supervisors, SEARCH participants and SEARCH faculty mentors.

There were also issues related to the organizational support and the time allowed for participants to work on SEARCH projects:

SS introduced this discussion by summarizing the efforts made over the past three years to address the question of organizational support from health regions for SEARCH participants. There continues to be a tension identified by participants, in particular related to the time protection needed to focus on projects. (SEARCH Steering Committee Minutes 0889)

Two other changes took place that provided positive links with the health regions. The first was initiated by SEARCH directors and involved the managers of SEARCH participants in an orientation meeting for SEARCH III, and this was repeated in SEARCH IV with positive results.

SS reported on the successful SIV Managers' Orientation. She noted a real shift in the interest and perspective since SEARCH III. There was a shift in language with a focus on clarification of the manager's role. Messages that came across clearly at the March 19 Meeting were:

- How do I support my participant?
- What can we do to help? (SEARCH Steering Committee Minutes 0889)

The second change involved the invitation from a health region to hold a SEARCH Program module in their region (previously modules were held in a single central location).

For the first time, SEARCH has been invited by a health authority to hold a module in their region. In June, Module VI will be held in Slave Lake (Keeweenaw Lakes RHA). (SEARCH Steering Committee Minutes 0887)

This change contributed to the overall goal of developing the SEARCH network and also provided opportunities for local CEOs, healthcare managers and even local politicians to become more familiar with and involved in SEARCH. From this point forward, all modules were held in different health regions across the province.

As noted above, SEARCH was conducted in a province with a healthcare system that underwent two major re-organizations during the life of SEARCH. The restructuring events are reflected in SEARCH steering committee minutes and indeed they were felt to be so important that restructuring was given a standing position on the agenda under the heading of 'Environmental Scan'. Within this agenda item, members of the Committee reported updates on the changes that were occurring within the newly defined regions.

It is clear from this evidence that SEARCH was working within a complex and evolving healthcare system. This required SEARCH Program leaders to establish close relationships with leaders in the health regions to ensure the most positive learning experience for participants as they continued their studies and carried out their project work. The invitation to hold SEARCH modules within the various health regions and the local support that this required

are indicative of the acceptance of the goals and aspirations of SEARCH and the role that could be played locally to achieve them.

AHFMR. SEARCH was only one of many AHFMR activities. There was therefore a need to ensure that there was alignment with the aims of the Foundation.

Steering Committee meeting minutes demonstrate tension around the Committee's role and authority. The extent of this tension/uncertainty was also demonstrated by the fact that it took over a year of bi-monthly meetings for the terms of references to be agreed and accepted by the Steering Committee and returned to the AHFMR board for approval:

The committee indicated that there was a synergistic relationship between SEARCH and Health Authorities, and that the AHFMR Trustees have the ultimate say in what is accepted and that the role of the Committee is one of an Advisory one. (SEARCH Steering Committee Minutes 0886)

The mission of the AHFMR was to improve health within the province through the conduct of high-quality healthcare research. On the positive side, this provided the impetus for the constant evaluation of SEARCH. However, the research conducted within SEARCH projects was not funded directly, nor was it at the same level of sophistication as the biomedical research being funded by the Foundation.

There was constant tension concerning the purpose of SEARCH projects. For example, were they learning tools for the students or were they research projects designed to inform the development of health authority policy, or could they be both? The tension caused by these differing objectives was never resolved.

It is clear that the relationship between AHFMR and SEARCH was complex and required constant adjustment.

SEARCH faculty. The relationship between SEARCH and the faculty was no less complex. The role and structure of the faculty changed significantly through the various iterations of SEARCH (Table 5). The majority of the faculty members for the first two cohorts were external to SEARCH and even the province. However, it became clear from the participant evaluations that a more coherent approach was required and therefore an investment was made to establish a core faculty. This required collaboration across a variety of academic disciplines (e.g. health services, health economics, statistics, business and nursing) in the two largest universities in the province as well as the inclusion of a private educational consultant who became a member of the core faculty for the duration of SEARCH. The relationship between SEARCH and the institute that provided the IT support was also complex. So there evolved a complex situation of a core faculty from a variety of different disciplines and institutions across the province.

The faculty members were very positive about their work within SEARCH as demonstrated by this quote from an Evaluation Steering Committee meeting:

It became clear from the interviews that individual faculty got great personal and career satisfaction from contributing to the training and education of health professionals in the community setting, and in promoting the effective use of evidence and research to improve decision-making in organizations. (SEARCH Steering Committee Minutes 0885)

SEARCH faculty members themselves were in a unique position. Their university departments valued the link with AHFMR. However, the data reflect some of the issues identified in

Table 5. Evolution in Program delivery and faculty over the first three cohorts.

Cohort	Delivery	Location	Faculty	Others
SEARCH I	2 × 7-week sessions in the first year although the program ran over 2 years	Single	Primarily visiting faculty	None noted
SEARCH II	7 × 1-week sessions spread over first 18 months of the 2-year program	Single	Core and visiting faculty	None noted
SEARCH III	7 × 1-week sessions spread over 2 years	Multiple around the province	Core faculty	Managers session Chief executive officer of local health authority Representatives of ethics committees

the formal evaluation of the faculty: that they were working in an exciting and innovative programme, which they enjoyed and felt was contributing in a substantive way to the CPD of healthcare professionals, but that their involvement did not necessarily contribute to their academic responsibilities or formal career progression:

The biggest issues for faculty, emanating from the interviews, was the issue of ‘traditional’ performance measures relating to career progression and performance in the academic setting, and direct control over the funding provided. None of the faculty interviewed had any research or publications (peer reviewed or otherwise) resulting from their involvement in SEARCH. (SEARCH Faculty Committee 0871)

These are only a few of the examples of the complexity of the environment in which SEARCH functioned. However, they demonstrate the constant challenge of balancing the needs of the health regions, the Foundation, the faculty and the participants.

Evaluative practice. A variety of approaches to evaluation (quantitative and qualitative) were used. The excerpts below illustrate the way in which the results of evaluation were embedded in discussions and used for future SEARCH planning.

The development of an ‘evaluation blueprint’ demonstrates the commitment to ongoing evaluation:

On the advice of the Evaluation Steering Committee, CC and DD were engaged to develop an ‘Evaluation Blueprint’, to inform the coordination and synthesis of information about SEARCH and its impacts over the next ten years. They were to describe the scope for future and past evaluation activities, capture the conceptual models developed by the committee and develop a road map to identify priority actions for the future. (Steering Committee Minutes 0889)

The embedding of evaluation in their approach is seen in the following quote:

SS gave a history of the evaluation process within SEARCH, including the establishment of the Evaluation Steering Committee, the end result of which was the development of the Evaluation Blueprint.

SS outlined the goals of this meeting:

- To review key findings from completed and in-progress evaluation projects
- To provide feedback on the development of the ‘Organizational Research Capacity Model’, and
- To identify implications and distil key recommendations for Steering Committee (and others). (Evaluation Steer Committee Minutes 0860)

There is evidence that external expertise was also sought to move forward with evaluation plans for SEARCH:

A workshop involving seven experts (researchers in relevant areas and two practitioners) plus AHFMR staff was held for the purposes of developing a conceptual framework through which to begin to understand the capacity of an organization to create and use research knowledge. There were two variations of models developed. These models were shared with the group and feedback sought. (Evaluation Steer Committee Minutes 0860)

There is also evidence that the Steering Committee set the priorities for this process:

Discussion centered on what Steering Committee members would include as the priority goals of evaluation of SEARCH. Thoughts and opinions expressed included: (Evaluation Steer Committee Minutes 0862)

And that they examined the results:

There’s been follow-up on the 14 recommendations outlined in the SEARCH Program Evaluation Blueprint, commissioned by the program to identify the primary questions that program stakeholders (particularly participants and their organizations) want answered. AA reviewed SEARCH’s activities in response to each recommendation, as well as the plans for seven specific research/evaluation projects to answer priority questions (as in attached action plan). (Evaluation Steer Committee Minutes 0863)

So the approach to evaluation was detailed, designed to be integrated and to span the long term of SEARCH. This demonstrated that there was a culture of evaluation embedded in all aspects of the planning and delivery of SEARCH.

Program innovation. This last data category relates to evidence supporting the premise that changes made to the delivery of SEARCH were not minor ‘tweaks’ but substantive alterations, as expected in an environment that was using a developmental evaluation approach. Although there are multiple examples, three areas have been selected that provide clear evidence to support this hypothesis; Program delivery (method and locations), role of faculty (including curriculum development) and the use of technology.

It is worth noting one of the recommendations from the March 2001 Steering Committee meeting, which took place toward the end of SEARCH III cohort and recruitment of SEARCH IV:

There is a need to keep overall SEARCH Program goals consistent throughout one iteration of SEARCH while recognizing the value of reviewing the goals regularly.

It was obviously recognized that extensive changes had been made to SEARCH and that more were planned but that some stability was required.

Program delivery. A significant change in the method of content delivery took place over the history of SEARCH, with the greatest changes occurring during the first three cohorts. These changes were driven by two primary forces: the participant evaluations and the overall goal of SEARCH to develop working networks of healthcare professionals across the province. Taken from a broader SEARCH perspective, the primary delivery changes were related to module structure and timing and location of the courses (Table 5).

A change to shorter modules over the course of the two years was driven by participant evaluations. As noted above, the decision to move the module locations around the provincial regions was instigated by a northern health region. This increased the time and travel costs of SEARCH (AHFMR covered all travel and accommodation costs for faculty and participants). However, the strategy was consistent with the goal of developing provincial networks. Not only did participants get first-hand knowledge of the different health regions (e.g. there were presentations related to local initiatives), but members of those health regions also had an opportunity to become more familiar with SEARCH through contact with participants and faculty.

These evolutions in SEARCH program demonstrate the use of ongoing evaluation to significantly alter the method of delivery in an attempt to meet its aims in an evolving context.

Role of the faculty. The faculty structure changed significantly up to and including the SEARCH III cohort (Table 5), including the establishment of the core faculty, which was responsible for Program delivery. The core faculty then spent the subsequent five years redesigning and improving the core curriculum of SEARCH as a response to continuous evaluation and feedback. The core themes of the curriculum remained unchanged, but there were significant changes to the ways in which core elements were delivered, with a focus on integrating the teaching from each element.

Use of technology. SEARCH experienced both benefit and difficulty from the use of technology. SEARCH was leading edge in the technology it provided for students (Lau and Hayward, 2000; Lau et al., 2001). The types of data that were collected as part of the evaluation of the use of technology are summarized in Table 6. All early evaluations identified issues with the use of the laptop computers, both during the modules and later when participants returned to work.

However, participants were working in a period of rapidly changing technology. The platform used for SEARCH was constantly being updated and new facilities added to allow students greater access to external resources. This included the early adoption of what we now know as WiFi, which happened during the SEARCH III cohort in 2000, long before it was being commonly used in other settings.

An overview of the evolution in information technology was provided to the January 2001 Steering Committee:

DD reported on the history of SEARCH in terms of informatics supports and technology. In SEARCH I, everyone got laptops; in SEARCH II, everyone had internet, with an on-line curriculum. AHFMR provided hardware and software. In SEARCH III, the Centre for Health Evidence, working with the Institute of Professional Development, has taken on the role of

Table 6. Types, volume and sources of data collected over two years.

Type	Volume	Source
Program documents These included pre-training surveys, computer instructional objectives, course outlines, technology feasibility study, project selection criteria, project milestone map, computer support policies, development of a second training program	10 sets of documents	Staff, organizers, coordinators, and participants Given to researchers
Participant interviews Three sets of telephone interviews conducted in Dec 96, Jun 97 and May 98	63 interviews	Participants Collected by researchers
Staff Interviews Face-to-face interviews with project sponsor, coordinators, and support staff conducted in Dec 96, Apr 97, and Apr 98	12 interviews	Staff Collected by researchers
Meetings Notes from meetings with coordinators, curriculum subcommittee, technology and content support staff, and facilitation sessions	34 meetings	Minutes recorded by staff; notes by researchers
Online surveys Automated online surveys from program integrator consisted of one set of registration surveys and three sets of interval surveys collected in Oct 96, Apr 97, and Apr 98	46 surveys	Participants Summarized by researchers
Discussion groups Computer discussion conferences were for participants and were moderated by participants	16 conferences 14 surveys	Participants Summarized by staff
Program website The website was maintained by program staff with 15 hypertext-linked sections and monthly website hit rate statistics	15 sections 19 months-hits	Participants, Web stats by staff Given to researchers
Help desk logs Logs recorded the history of technical assistance provided to participants and staff from Jul 96 to Jan 97	267 log entries	Technical staff, participants Given to researchers
Computer usage Three sets of application usage and online survey data from the program integrator of each participant's notebook were collected in Oct 96, Apr 97, and Apr 98	30 sets of usage data	Participants Collected by researchers
Training courses Workshops on resource inventory, needs assessment, grant proposal writing. Microsoft Access, and distance education used face-to-face meetings, an interactive website, and video conferencing	31 feedback 1 group input	Participants Collected by staff; forwarded to researchers
Program evaluation Evaluation reports produced by independent consultants provided by participants, regional executives, and managers at 7 weeks, 6 months, 1 year, and 18 months were evaluated by independent consultants	4 reports	Collected by independent consultants

Adapted from Lau and Hayward (2000)

- Creating an on-line virtual community,
- Integrating knowledge resources required to conduct program

DD commented that IT has developed to a point that makes managing a distributed community much easier: all participants need is access to the internet. There is great diversity among the RHA's in Alberta, and CHE has experience with brokering these discussions. There isn't going to be one answer. (Steering Committee 0891)

In summary, the 'ready, fire, aim' approach used to establish SEARCH continued throughout at least the first three cohorts (seven years, as a gap year was taken between cohort II and III to allow for curriculum modifications). The changes made to delivery, the role of the faculty and the use of technology meant that the results of evaluations were used to make dramatic changes to SEARCH over that period of time. Such changes would fit within a context of the use of developmental evaluation and not simple formative or summative evaluation.

Discussion

In his introduction to Jamie Gamble's (2008) primer on developmental evaluation, Michael Quinn Patton wrote:

[T]he answers will emerge from the process and won't be known until you engage in and reflect on the process . . . developmental evaluation will help you be clear about where you started, what forks in the road you took and why, what you learned along the way, and where you ended up, at least for a moment in time . . . (p. 6)

In his primer, Gamble provides background on the emergence of developmental evaluation through a set of Canadian workshops where volunteer organizations met to address issues related to social innovations that were difficult to evaluate. He describes developmental evaluation as embryonic, with new ideas about it emerging all the time. The research reported here is an attempt to retrospectively examine the processes utilized in SEARCH to identify the role of evaluation in its development and to indicate how a set of characteristics identified as developmental evaluation (in retrospect) provide an appropriate and useful approach.

The data extracted as part of the qualitative analysis clearly demonstrate that SEARCH was a complex evolving program functioning in an even more complex and evolving healthcare system that was grappling with the difficulties of implementing EBP. In that situation, evaluation took place on micro and macro levels. In such situations the use of standard formative and summative evaluation is not the most useful approach, because the problems are unbounded and it is likely that there are no right approaches – just some that are better than others.

Fit with developmental evaluation

Taken individually, the evaluations carried out as part of SEARCH could be viewed simply as examples of formative and at times summative assessments. However, examined through a broader lens it is clear that whether or not the process was labelled as such, the faculty and administration of SEARCH were engaged in developmental evaluation, with a variety of individuals taking on a leading role at various times during the life of SEARCH. Examination of the documents revealed a culture that valued and supported reflection and evaluation at all

levels. Results from evaluations were examined critically, and significant changes were made as a result of that examination. Three areas of the data were examined specifically: SEARCH delivery, faculty, and use of technology. Each of these underwent significant changes over the span of SEARCH and therefore contributed to the developmental changes in it.

It would be a mistake to depict the focus of this article as a retrospective evaluation. In his book, Patton (2011) describes what he refers to as retrospective developmental evaluation as an approach to be used by evaluators who are in the early stages of evaluating a well-established programme that may be looking to change. This was not the purpose of the current study – we had no intention of using the findings to inform future changes in SEARCH – in fact SEARCH no longer existed when the study was completed. Instead we aimed to demonstrate that the evaluative process that had been used fell within the developmental evaluation paradigm and was used appropriately throughout the life of SEARCH. The focus of the article then is *on a set of evaluative practices associated with a complex programme not on the programme itself*. It has demonstrated that the characteristic of developmental evaluation evocatively reflects an effective evaluation within this complex environment. Interestingly, we can say that this validates and authenticates developmental evaluation as a set of evaluative practices irrespective of its label.

It is interesting to note that when changes were made in SEARCH delivery and curriculum, the SEARCH faculty was not restricted to working within the academic arena. That is, they did not seek formal accreditation for a Masters or PhD credential for SEARCH. If that road had been chosen, they would have been severely limited by institutional policies, and would not have been able to make the wholesale changes that they did in curriculum design and delivery. Instead, they remained independent and continued to focus on the work of participants in their work environment. In his discussion of the value of work-based learning, Garnett (2001) supports their decision as he points out that ‘in the age of the ‘knowledge driven economy’ and the ‘corporate university’ the creation and evaluation of knowledge is now too important and all pervasive to be left to higher education’ (p. 78).

Although this was a decision that favoured the evolution of SEARCH, the faculty were, at times, put in the difficult position of working for two masters, and their work with SEARCH did not always directly fit in with the academic requirements of their universities or their personal goals of career progression. In addition, a lack of ownership within the institutes of higher education made SEARCH vulnerable to the funding cuts that eventually caused it to be terminated.

So, in answer to the question of whether the evaluative practices used in SEARCH led to programme development and evolution, the answer is definitely yes. These practices have been situated within the context of developmental evaluation. The evaluation processes used match those outlined above, in that they clearly demonstrated where SEARCH started, what roads were taken and why, what the participants and faculty learned along the way and where they were currently situated. Evaluation formed an intrinsic part of all activities, and the data demonstrate that substantive changes were made as a result of the findings of those evaluations.

A key question is how can the experiences of SEARCH be used by future evaluators who may choose to implicitly use developmental evaluation practices? The most recent update of the Joint Standards Committee released in 2011 spanned a 10-year period. It includes recommendations related to the documentation of the negotiated purpose and conduct of evaluations as well as the use of internal and external meta-evaluation (Yarbrough et al., 2011). So it

would seem that the door is open to formalize such approaches. Some core lessons or epithets for evaluative practice drawn from the experience analysed in this article might include the following:

- Evaluation blueprints are appropriate but only as principles of procedure.
- Open and intuitive understanding of what counts as an evaluative question is central.
- Evaluative practice should be evolving and adaptable and sensitive to changes in programme direction.
- An evaluative culture is more important than technical efficacy (which can be procured).
- Evaluative culture means embedding reflexivity in many evaluative moments (McCluskey, 2012).
- Building evaluative processes into programme design is important but also time consuming.

Conclusions

Standard evaluation techniques using formative and summative evaluation did not fit the complex and innovative world of SEARCH. This retrospective study demonstrates that although participants did not define their work as developmental evaluation, this was in fact what the staff, faculty and evaluators within SEARCH were doing.

So in answer to the question ‘Is developmental evaluation new or something that has always been done?’ in the case of SEARCH the answer is yes they did it from the beginning. In fact, this would be what many evaluators believe they have been doing for some time. However, they will have been doing it in the shadows (or even the closet) of their evaluations, that is, behind the scenes and with programme personnel. What Patton’s recognition and definition of developmental evaluation allows them to do is be up front about their roles and the importance of complexity within the programmes they evaluate, as well as to value those situations and acknowledge the need for flexibility in programme evaluation, implementation and change. The developmental evaluation paradigm is the forefront of evaluative intuition but emphasizes systemness, transparency and embedded usability.

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Rumona Dickson is the Director of a research group that conducts reviews of clinical effectiveness. She has a long-standing interest in capacity building for health care professional to assist them in using research in practice. The research that informs this paper examined a programme designed to address this issue.

Murray Saunders is Co-Director of the Centre for Higher Education Evaluation and Research and Director of the PhD programme on Higher Education research, evaluation and enhancement at Lancaster University. He is Professor of Evaluation in Education and Work, Vice president of the IOCE [International Organisation for Cooperation in Evaluation] and on the executive committee of EvalPartners, a global evaluation network for evaluation capacity building.