

PARTICIPATORY EVALUATION AS SEEN IN A VYGOTSKIAN FRAMEWORK

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Abstract: In participatory evaluations of K–12 programs, evaluators develop school faculty’s and administrators’ evaluation capacity by training them to conduct evaluation tasks and providing consultation while the tasks are conducted. A strong case can be made that the capacity building in these evaluations can be examined using a Vygotskian approach. We conducted participatory evaluations at 9 Hawaii public schools and collected data on the extent to which various factors affected participating school personnel’s learning about program evaluation. After the evaluations were completed, a trained interviewer conducted standardized interviews eliciting the participating school personnel’s opinions about the methods and effects of the capacity building. Two reviewers used codes representing Vygotskian concepts to categorize the interview results. We present the results of the coding and provide conclusions about the value of using a Vygotskian framework to examine capacity building in participatory evaluations.

Résumé : Dans les évaluations participatives de programmes K–12 (étudiants de 5 à 18 ans), les évaluateurs développent la capacité d’évaluation du corps enseignant et des administrateurs en les formant à mener des travaux d’évaluation mais aussi en les accompagnant dans ces travaux. On peut avancer comme argument convaincant que le renforcement des capacités d’évaluation peut être examiné dans ces évaluations en se servant d’une approche vygotkienne. Nous avons mené des évaluations participatives dans 9 écoles publiques en Hawaii et rassemblé des données révélant à quel degré différents facteurs ont influencé l’apprentissage du personnel sur l’évaluation des programmes. Après avoir terminé les évaluations, un enquêteur formé a mené des entrevues standardisées avec les personnels participants au sujet de leurs opinions sur les méthodes et les effets du renforcement

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des capacités d'évaluation. Deux enquêteurs ont classé les résultats des entrevues d'après des codes relatifs aux concepts vygotskiens. Nous présentons ici ces résultats en fournissant plusieurs conclusions sur la valeur de l'utilisation d'un cadre vygotskien pour examiner le renforcement des capacités d'évaluation dans les évaluations participatives.

INTRODUCTION

For at least 15 years, program evaluation theorists have discussed methods for increasing the capacity of program personnel to participate in and conduct evaluations. Participatory evaluation (PE) theorists (e.g., Cousins & Earl, 1992, 1995) have discussed the effects of PEs on program personnel's understanding of evaluation methods. Evaluation capacity building theorists (Compton, Baizerman, & Stockdill, 2002) have discussed the effects of organizational capacity to conduct evaluations on the routinization of evaluation practice, and process use theorists (e.g., Patton, 1997) have discussed how participation in evaluations helps participants think evaluatively.

Much of the attention in these bodies of literature has been given to a form of constructivism described by organizational learning theorists (e.g., Argyris & Schön, 1978; Senge, 2006). However, little attention has been given in this literature to the social constructivism expressed in Vygotskian theory (Vygotsky, 1978). Describing the theoretical framework of social constructivism as based on Vygotsky's theory about knowledge and learning, Ball (2000) stated:

Learning is temporary, developmental, internally constructed, and socially and culturally mediated. From this perspective, learning is a self-regulatory process of struggling with the conflict between existing personal models of the world and discrepant new insights, constructing new representations and models of reality as a human meaning-making venture with culturally developed tools and symbols, and further negotiating such meaning through social activity and discourse. (p. 230)

Viewing evaluation capacity building through a Vygotskian lens can contribute to the evaluation capacity building literature by focusing on how organizational learning is manifested at the level of the individual organizational participant. We use such a lens in this article to describe PE that consisted of professional development (PD) workshops and individual consultations. The PD was designed to

teach a few K–12 school administrators, faculty, and staff at several schools how to conduct selected evaluation activities. The PD was also an opportunity for the evaluation professionals to learn about the school personnel and their schools' cultural context. Our method was to conduct interviews about the PD workshops and consultation that we provided to the school personnel. To our knowledge, only one other evaluation (Manset-Williamson & Rogers, 2002) has used Vygotskian concepts to examine evaluation.

Using a Vygotskian framework, our study addresses the question, "What aspects of the PD workshops and consultation, characteristics of the participating school personnel, and aspects of the school environment influenced the school personnel's learning of program evaluation skills and knowledge?" From the results of the study, we also infer the extent to which Vygotskian principles are useful for examining the PD that occurs in PE and the extent to which evaluators can be informed by the use of Vygotskian theory.

BACKGROUND

The interaction of evaluators with program stakeholders for the purpose of improving evaluations and the use of evaluation findings has a long history. Tyler, during the eight-year study of the 1930s, was probably the first to involve stakeholders in educational program evaluation (Tyler, 1987). Citizen participation in educational evaluation was encouraged in the 1970s (Smith, 1983). Patton and his colleagues were among the first to examine stakeholder involvement for the purpose of enhancing the use of evaluation findings (Patton et al., 1977). In 1983, Bryk reported the first intensive study of evaluator-stakeholder interaction. Drawing on action research models, PE theory was developed in the early 1990s, with a strong emphasis on involving primary evaluation users in all phases of formative evaluations for the purpose of improving the use of findings.

Cousins and his colleagues have been the most avid proponents of PE theory in program evaluation (e.g., Cousins, 1996, 2003; Cousins, Donohue, & Bloom, 1996; Cousins & Earl 1992, 1995). Cousins and Earl (1992) defined PE as "applied social research that involves a partnership between trained evaluation personnel *and* practice-based decision makers, organization members with program responsibility, or people with a vital interest in the program" (pp. 399–400). PE is built on "the sociocultural conception of learning as a collective participatory process of active knowledge construction emphasizing

context, interaction, and situatedness” (Salomon & Perkins, 1998). In educational PE, the school personnel serving as evaluation team members learn about evaluation under close supervision of evaluation experts (Cousins & Earl, 1992).

PE theory draws heavily on organizational learning theory (OLT) (e.g., Argyris & Schön, 1978; Daft & Weick, 1984; Fiol & Lyles, 1985; Levitt & March, 1988; Senge, 2006). OLT provides PE with the insight that “the production of evaluative information” and “the use made of this information and the impacts of the evaluation process ... are all heavily influenced by the learning processes of individuals and groups, as well as by organizational context” (Rogers & Williams, 2006, p. 77). For educational PE, OLT provides the insight that knowledge is socially constructed through interactions between school administrators, faculty and staff, and evaluation consultants (e.g., see Collinson & Cook, 2007). Organizations’ learning grows as new constructs are integrated into existing cognitive structures.

THE CONNECTION OF ORGANIZATIONAL LEARNING THEORY AND PARTICIPATORY EVALUATION THEORY TO VYGOTSKY’S LEARNING THEORY

Although to our knowledge the connection has been discussed only occasionally, OLT is highly consistent with Vygotskian theory (Higa, 2005). OLT addresses the constructivist nature of learning within an organizational developmental and business management perspective, whereas Vygotskian theory addresses the constructivist nature of learning from developmental psychology and instructional psychology perspectives, with a concomitant focus on learning at the individual level. We contend that the focus on the individual provided by a Vygotskian framework can help broaden the profession’s understanding of the processes that occur in evaluation capacity building. Organizational evaluation capacity is the combined capacity of individuals; our intent is to focus on the individual to a greater degree than we see in the literature on organizational learning. Furthermore, applying Vygotskian theory helps the teacher plan and implement the instruction of individuals—activities that, we believe, have scant theoretical foundation in the evaluation capacity building and OLT literatures.

Vygotsky studied intellectual development “in all its phases and changes—from birth to death” (Vygotsky, 1978, p. 65), and his theory has been applied to learning at all levels of development (e.g., Tharp

& Gallimore, 1988). His theory posits that higher mental functions begin on the social level, called the *interpsychological plane*, where learners encounter the various aspects of learning tasks, including the cognitive aspects of understanding the tasks and their significance within cultural contexts. Individuals' understanding of and sense of responsibility for organizational activities are based on their participation with others in the activities. For this reason, Vygotsky specified that the interaction occurring in social activities should be the unit of analysis, in contrast to other developmental psychologists, who focused on the individual as the unit of analysis (Driscoll, 2000). The learning on the interpsychological plane is internalized on the individual level, called the *intrapsychological plane*.

The degree of learning in any particular instance depends on the *zone of proximal development (ZPD)*. The ZPD is the “distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (Vygotsky, 1978, p. 86). It is where teaching-learning social processes take place. As learning progresses through the ZPD, the learner increasingly assumes responsibility for the processes necessary to complete the task competently and without assistance (Vygotsky, 1978).

In the ZPD, teachers and learners engage in *semiotic mediation*. That is, through speech, teachers and learners both respond to each other and modify the interaction between each other. Through this process, they establish *intersubjectivity*—that is, shared understanding—about terminology and the values attached to the terms and learning tasks. As learners advance toward competent performance of the task, they achieve deeper levels of understanding about the task.

Vygotskian theory includes several aspects that serve as an appropriate and useful framework for studying the PD and consultation that evaluators provide in PEs:

- Learning begins as program personnel and evaluators interact (on the interpsychological plane) and is deepened when all parties internalize their learning (on the intrapsychological plane).
- Semiotic mediation and intersubjectivity occur as all parties come to a shared understanding about the various purposes, contexts, tasks, perspectives, and knowledge that they bring

to the interaction. Through semiotic mediation, program personnel and evaluators establish intersubjectivity about the various purposes, contexts, tasks, and so forth that compose the program and its evaluation.

Learning can only take place within the ZPD, which moves forward as learning progresses. In the context of educational PE, school personnel learn from evaluators the values, approaches, ethics, methods, and techniques of evaluation, and evaluators learn from school personnel the values, intended uses of evaluation findings, key players, program purposes, program methods, issues needing studying, and so forth. Participatory evaluators who are training school personnel about evaluation must know school personnel's prior knowledge when structuring subject matter and assess their grasp of basic terminology before moving on to more complex material.

DESCRIPTION OF THE PARTICIPATORY EVALUATIONS

We were contracted by the Hawaii Department of Education to provide evaluation services to two programs that funded site-managed projects at 20 schools that received funds to develop projects of their choosing. The contracted evaluation services were to provide workshops and consultation about how to (a) write descriptions of the funded projects, (b) develop evaluation designs and select evaluation methods, and (c) collect evaluation data. Project personnel were responsible for (a) attending PD workshops or, for projects at distant schools, meeting with us for PD at their schools; (b) defining and describing their projects' objectives and methods; (c) collaborating with us on developing their evaluation questions, designing their evaluations, and identifying or developing data-collection instruments; (d) collecting data; and (e) consulting with us when they had questions throughout the school year. The PD did not address data analysis or the reporting of evaluation results; we conducted those phases of the evaluations ourselves.

The evaluations had most of the characteristics of PE but differed from strictly specified PE in that (a) they were summative, (b) the reports were submitted to an external audience, and (c) little of the focus of our work was on enhancing the use of evaluation findings. Our intent was to build the evaluation capacity of the schools for one cycle of evaluation; we did not examine the long-term effects of our services on schools' evaluation capacity or on changes made in the projects due to the evaluations.

We provided training to school personnel in workshops and consultation. We chose these methods so that participating school administrators and faculty would be given opportunities to learn program evaluation skills in both didactic and interactive formats at group workshops or at individual schools and to promote mutual understanding with the administrators, faculty, and staff about the evaluation tasks and the purposes of the PD.

The two workshops were three-hour sessions presented at multiple sites to a total of 59 school personnel (administrators, faculty, and staff) who were conducting the projects. For most of the projects, two to six people were trained or participated in the evaluations and PD (mean = 3.7, $SD = 2.6$). We provided a written evaluation guide (Brandon & Higa, 1997) to the school personnel who attended. The first purpose of the workshops was to train project personnel in how to write project descriptions. The descriptions served as the basis for understanding the projects' logic models. We also trained the personnel in how to design their evaluations. The workshops began with lecture-style presentations of basic information, followed by break-out sessions in which we provided intensive consultation and in which the school personnel applied what they had learned in the lectures. We collaborated on decision making about the foci of the schools' evaluations and, when time permitted, about data-collection methods, the parties responsible for completing each task, and evaluation timelines.

We provided consultation throughout the school year, including meeting with participants at their schools and developing and providing participants with our written guide on evaluation methods (Brandon & Higa, 1997). We communicated with the administrators, faculty, and staff by phone, fax, e-mail, or in in-person meetings as needed to decide on procedures for distribution and collection of data-collection instruments.

School personnel were given considerable leeway by the Hawaii Department of Education on how much they participated in the PD and asked for consultation. Ultimately, they were responsible for their evaluations, and it was not our purview to monitor their progress but instead to provide training upon request. Consequently, participation levels varied considerably, with some school personnel participating fully throughout the year and others beginning their participation after one or both of the workshops or initial meetings.

METHODS

The study reported here was designed to collect and analyze school personnel's retrospective perspectives about the factors that affected their learning of program evaluation knowledge and skills during one school year. The 15 administrators, faculty, and staff who participated in this study did so on a voluntary basis. It was only feasible to interview those who participated in the PE on the Hawaiian island of Oahu. The interviewee group consisted of 11 women and 4 men and included four administrators, two teachers, two project coordinator/teachers, one reading coordinator/teacher, one curriculum coordinator/teacher, one School-to-Work coordinator/teacher, one librarian, one technology coordinator/teacher, one budget coordinator, and one counselor. Some of the projects that the interviewees managed were at multiple schools, and some schools shared projects. The interviewees were from nine of the participating schools (five elementary, one middle, one intermediate/high, and two high).

Developing the Interview Guide

A standardized interview guide with open-ended questions was developed (Higa, 2005). The guide (a) provided background and interviewer instructions, (b) included 15 items about the respondents' professional background, and (c) included a section for each of the three components in which the school personnel were trained. The first component, which we call the Project Description Component, had to do with preparing descriptions of the projects that the schools were evaluating; there were 33 interview items addressing it. The second component, called the Design and Methods Component, had to do with designing evaluations and selecting evaluation methods. For this component, there were 34 interview items. The third component, called the Data Collection Component, had to do with collecting evaluation data; for it, there were 31 items. For each component, the interview guide asked about (a) the aspects of the PD that influenced learning program evaluation skills, (b) the characteristics of the participating school personnel, and (c) the characteristics of the school environment that accounted for learning evaluation skills. To help ensure the content validity of the items, we asked other expert evaluators to review the items. Content validity was also ensured by taking considerable care in training the interviewer and conducting the interviews in the manners specified in the training.

Conducting the Interviews

An experienced interviewer who had not participated in the PE was trained. She interviewed the school personnel from the nine schools

for approximately one to two hours each, recorded the interviewees' responses as handwritten notes, and audio-recorded the interviews when the interviewees agreed. The interviewer transcribed the handwritten notes and added information from taped interviews.

Analyzing the Interview Data

The unit of analysis was the interview response. Similar responses within or across respondents were combined into statements reflecting common content.

The interview data were categorized and analyzed using the list of Vygotskian codes shown in Table 1. The first author and an advanced doctoral student in educational psychology independently assigned codes representing Vygotskian concepts to the interview data. The coders were careful not to assign codes based on their knowledge about the interviewees or the schools and to assign codes based on meanings or actions that were explicitly stated in the data. The codes were qualified with plus or minus signs that indicated the degree to which the characteristics or environment of the evaluation participants and the aspects of the PD and consultation enhanced (shown with plus marks) or detracted from (shown with minus marks) learning about evaluations or conducting evaluation tasks. (The interview respondents' knowledge of their individual school settings was used to provide information on the environment of the PD. We acknowledge that we did not emphasize environmental or cultural variables to the degree that they are emphasized in organizational learning theory.) Neutral codes (neither plus nor minus) were assigned when ambivalent responses were given or when two or more interviewees participating in an interview gave conflicting responses. The definitions of the codes were refined to resolve ambiguities or overlapping meanings after the initial round of coding. Interview responses were labelled according to multiple Vygotskian categories when appropriate. The reviewers met until they had resolved differences in coding. This process narrowed the definitions of the codes.

Intersubjectivity and internalization, which are later stages of learning, have to do with achieving common understanding (interpsychological) and having that understanding become intrapsychological to a person. We found that the codes for intersubjectivity and internalization were seldom used because it was not clear from the data that the interviewees actually reached these ZPD stages.

Table 1
Codes Used to Represent Vygotskian Concepts

Code	Description
<i>Codes mainly pertaining to the individual</i>	
Prior experience (PE)	Knowledge, beliefs, and values that learners bring to the learning situation that may influence their learning
Learner's attention to components (LA)	Interviewee's perspective or focus in the evaluation component (project description, developing an evaluation plan and selecting or developing methods, and data collection)
Motivation (MO)	Interviewee's belief about the need for the evaluation task
<i>Codes mainly pertaining to the individual's context for the evaluation</i>	
Sociocultural context (SC)	Value of others at the interviewee's school and receptiveness of the interviewee or others at the school to the evaluation task.
Learner's environment (LE)	A descriptive code for the school context for the evaluation. If several people were involved with or knowledgeable about the evaluation, then a LE+ was assigned. If only the administrators and school personnel were involved in the evaluation or one or two other people were involved in or knowledgeable about the evaluation, then a LE- was assigned. If adequate school resources (including people) were available for the evaluation, then a LE+ was assigned. Conversely, if inadequate school resources were available for the evaluation, then a LE- was assigned. When others were consulted, such as school administrators, faculty, or staff, then a LE+ was assigned. If only a few people who were not administrators or if no one was consulted, then a LE (neutral code) was assigned because consultation may not have been necessary. A neutral code was used when ambivalent responses were given about one part of the evaluation, for example, when it was positive in one sense and negative in another. A neutral code was also assigned if there were statements from more than one staff member in an interview about the same part of the session, but one staff member had a positive perspective and one staff member had a negative perspective.
<i>Codes mainly pertaining to the interaction between CRDG and the interviewee in the training</i>	
Intersubjectivity (IS)	Shared understanding between teachers and learners about terminology and the values attached to the terms and learning tasks; the goal of semiotic mediation
Internalization (IN)	The learner's reconstruction of psychological activity that the learner was formerly able to do only through interaction with others on the interpsychological plane (Vygotsky, 1978). As learners advance toward competent performance of the task, they achieve deeper levels of understanding about the task and assume increasing responsibility for the processes necessary to competently complete the task without assistance (Vygotsky, 1978).
Semiotic mediation (SM)	The quality or type of interaction between evaluators and interviewee.
Zone of proximal development (ZPD)	The area between and including the interpsychological and intrapsychological planes where teaching-learning social processes can happen. The ZPD as described by Vygotsky is a spiral (rather than a linear path) where the learner will continue to sweep around old knowledge while incorporating new knowledge.

The results of the coding were divided into the group of administrators and the group of faculty/staff. We divided the results in these ways because the backgrounds and roles varied between these two types of personnel and were likely to have strong effects on school personnel's receptivity to PD and use of consultation. By its very nature, PE is an endeavour that takes into account the roles of participants; therefore, our analysis reflects this characteristic of PE.

RESULTS AND DISCUSSION

In this section, we present the major themes or topics on which there was agreement for multiple interviewees and a summary of the findings addressing the topics. We summarize the findings across the three PE components of this study (Project Description, Design and Methods, and Data Collection).

Aspects of the PD That Influenced the School Personnel's Learning of Program Evaluation Skills

Size of the PD Sessions

The PD sessions positively influenced the participants' learning about conducting program evaluation tasks in all three components. The administrators by and large found the workshops effective, but the small group and individual consultations were more effective for the school faculty and staff, who probably had difficulty understanding the information in workshop presentations because they had little or no prior knowledge. These findings suggest that group size affected the evaluators' assessment of the learners' ZPDs during the PD. In small group or individual sessions, more easily than in large groups, the evaluators could assess whether they were using understandable terminology and exchanging information at the appropriate pace to enhance the semiotic mediation among the participants or between the school personnel and evaluators. This especially applied to the group of people with diverse backgrounds who participated in the PD workshops.

The findings showed that the large group format had a positive influence on participants with prior knowledge of evaluation. The school administrators had more prior experience than the faculty and staff in conducting evaluations. The faculty and staff probably were dependent on opportunities to ask questions and participate in discus-

sions with evaluation experts or administrators with prior knowledge. These findings are consistent with Vygotskian theory about making connections between prior knowledge and current knowledge. Some statements by the administrators that illustrate these conclusions are “focus was appropriate, most helpful that CRDG met with them individually after the generic workshop” and “workshop was ‘extremely technical’ and he/she understood it because he/she had heard it before.” Some statements by the school staff that illustrate these conclusions are “meeting with them [CRDG] afterwards really helped because then they could clarify the concerns and issues that we had” and “they were able to get more information in the small group discussions with the CRDG Evaluation Principal Investigators.”

The Importance of the Evaluation Tasks

When asked about the Design and Methods Component and the Data Collection Component, almost all of the interviewees stated either that the evaluators adequately explained the importance of the evaluation tasks or that the interviewees already knew the tasks were important. This reflects the Vygotskian principle that semiotic mediation results in a common understanding (intersubjectivity) of the socio-cultural aspect of the task. This common understanding is a necessary component of learning. Faculty and staff need to come to a common understanding about the socio-cultural values and meanings for the evaluation tasks in order to be motivated to understand the tasks and participate in the tasks.

As the evaluators exposed the school personnel who participated in the PD to various aspects of an evaluation task, including the importance of the task, learners became acculturated or developed their own sense of value for the task (internalization). Similarly, Lee and Cousins (1995) found that school personnel are willing to give more time and effort to PEs when they value it. Lee and Cousins wrote, “strong motivation of the project participants and their high level of commitment and ownership of their projects made the process a rewarding one.... Resistance, apathy, and ‘other priorities’ are not in evidence” (p. 83).

The results for the Project Description Component did not show that the school personnel understood the importance of the task. This might have been because project descriptions are not seen by non-evaluators as part of evaluation. Furthermore, the findings for the component probably were confounded by a request within the previ-

ous few weeks by the Hawaii Department of Education to prepare a similar project description for a non-evaluative task. This request potentially confused the school personnel about why and how the project description was useful for evaluative purposes.

Other Aspects of the PD That Had Positive Influences on Participants' Learning

The findings showed that the respondents believed the pace of the PD sessions and the length of the sessions positively affected their learning. These findings reflect the Vygotskian learning principle that the logistical aspects of learning sessions enhance learning if they are appropriate to learners' abilities to learn about a topic.

Cognitive features of the PD—including the focus of the PD sessions, coverage of concepts, understandability of written materials, monitoring of progress and reminders about next steps, and clarification of the tasks—also positively affected learning. The cognitive features of the PD were mediators that guided the learner through the ZPD toward independent, competent performance of the evaluation tasks. These findings suggest that the conditions for learning about conducting evaluation tasks were favourable because the learners' ZPD was appropriately addressed. Administrators' statements that illustrate these findings are "CRDG staff members were always available for questions"; "liked the written materials and found them useful"; "anytime I needed help I could just call or email"; and "they really kept us on our toes and it was very courteously and graciously done." Staff members' statements that illustrate these findings are "taught us to become very concise"; "appreciated the examples in the written materials"; "small group work in plain language"; and CRDG "walked us through it ... they emphasized total quality control in collection techniques."

Characteristics of Personnel Participating in the PD That Accounted for Learning Program Evaluation Skills

Participants' Attitudes About Evaluations and Participating in the PD Workshops

In a previous study (Brandon & Higa, 2004), which we conducted on a larger group from which the study reported here was selected, we showed that the PE participants increased their confidence in themselves as evaluators from before to after their participation in the

PEs and that they perceived that the PEs increased their capabilities as evaluators. These results suggest that the groups of participants that we interviewed for the present study, which were drawn from the larger group, learned from the PE.

The administrators interviewed in the present study had positive attitudes about (a) evaluations in general, (b) being selected to participate in the evaluation, and (c) reasons that they were selected to participate in the evaluation. Their positive perspective might have facilitated their levels of learning about evaluation and resulted in more learning than the faculty or staff achieved. For example, one administrator stated that he/she was “required to participate in the evaluation, which was ‘fine’ because they wanted to see if they could validate the project.” Another administrator stated that “the evaluation was important to their project so they could measure the effectiveness of their efforts.”

The degree to which the interviewees had positive attitudes about participating in the evaluation and evaluations in general was consistent with the degree to which they reported learning evaluation. The relationship between participants’ attitudes toward program evaluation and learning of evaluation skills is consistent with the Vygotskian theory that learning activities are most effective when the learners are motivated to learn. Similarly, Cousins and Earl (1992) stated that PD about evaluations is most effective when the participants value evaluations and are motivated to learn how to conduct evaluation tasks.

Characteristics of the School Environments That Accounted for Learning Program Evaluation Skills

Extensiveness of Participation by Others at the Schools

The findings tentatively suggest that all components were helped by consulting others at their schools. The involvement of others at their schools might have affected the evaluations because more people may have known about the evaluation and because the quality of their involvement may have been greater.

The findings tentatively suggest that administrators learned more about conducting program evaluation tasks than did the faculty/staff. We posit that the administrators had more assistance from other personnel at the schools than the faculty/staff. Similar findings

are shown in the PE literature, where the number of people in the organization who are involved with the evaluation and the quality of their involvement has direct relationships to the quality of the evaluation activities. Cousins and Earl (1992) stated that an organization's potential for learning is greatly enhanced if the staff who participate in the evaluation have organizational memory. Cousins and Earl (1995) stated, "A significant feature associated with organizational learning is the organization's capacity to order and store information for future retrieval and, indeed, its capacity to retrieve desired information as the need arises" (p. 6). They suggest that if key staff at the school are consulted, it is then more likely that there will be a pool of organizational memory to enhance planning and conducting the evaluation tasks.

Previously, it has been shown that the level of awareness about an evaluation by others directly affects how well the evaluation task is conducted (Cousins, 1992). Our findings suggest that the evaluation tasks were better conducted at the schools where administrators were involved in CRDG's PD sessions.

The findings show that only faculty and staff, but not administrators, reported negative changes in perceptions of their roles or status because of their participation in data collection. Mainly, the negative changes in perceptions by the interviewees' colleagues at their schools had to do with the perception that the interviewees were asking their colleagues to do more work (participate in the evaluation data collection) and had to remind their colleagues about the work ("nagged" them). This finding suggests that when the evaluation tasks fall to the faculty and staff, others at the school might feel that the requests for evaluation data are an imposition. In contrast, when administrators collect data, the tasks are likely to be perceived as necessary duties. The finding also showed that the school personnel believed their status or role might change in the future, when the evaluation findings were distributed, suggesting a wider interest in the evaluation and the potential use of its results. Enhancing use is, of course, PE's primary purpose. Although our PE was not intended to address this purpose, it nevertheless might have had the effect of enhancing use.

Changes in School Roles or Status Due to Participation in the PE

Changes in school personnel's school roles, status, or influence due to writing the project description were considered indicators of the perceived value for the evaluation by others at the school. For the

Project Description Component and the Design and Methods Component, the school personnel reported no changes in their role or status in their schools as a result of their participation in the evaluation. For the Data Collection Component, however, negative findings were found for the faculty and staff. Some faculty or staff who participated in the evaluation PD stated that others at their school thought that they were being “nags” by asking or reminding other school staff to participate in the evaluation or that asking other school staff to participate in the evaluation was similar to asking for favours. This finding might reflect school cultural values where evaluation tasks are not highly valued or are not considered high priorities for use of time and effort. Some administrators, faculty, and staff stated that their role or status at the school may change, depending on the evaluation findings.

Availability of School Resources

We speculated that the availability of resources might affect involvement. However, no clear pattern of results suggests that having adequate resources available for the evaluation affected any of the evaluation components.

DISCUSSION

We discuss the implications of our findings in terms of what we currently know about involving school-based personnel in evaluation and for the application of Vygotskian theory to the study of evaluation capacity theory. Before we address these issues, it is important to consider the limitations of our study.

Limitations of the Study

In addition to the limitations due to our data collection method, as noted above, there are five other limitations of this study that should be kept in mind when interpreting its results. First, the results reflect perceptions of relationships, not assertions of causes. Interviewees made causal statements, but these should be interpreted with caution. Second, the findings were based solely on retrospective interviews. There was no manipulation of treatments and no comparison group. Third, the interviewees' recollections may have been biased somewhat due to memory and forgetting effects, and perhaps by a social desirability bias. Fourth, the findings should be interpreted in

light of their context of a multi-site PE of site-managed programs. Finally, the findings about the adequacy of resources, changes in role or status at the school, and level of influence at the school varied among the three evaluation components, making it difficult to arrive at conclusions about the effects of these evaluation aspects. The lack of clear findings about these topics may be due to the small number of respondents. It may also be due to ambivalence in the school faculty and staff about the value of the evaluation or the stature of the interviewees who participated in the evaluation. We now turn to a discussion of our findings.

Implications of the Results

The results of this study suggest the characteristics of (a) the delivery of PD about PE, (b) the recipients of the PD, and (c) the settings of the PD that affect evaluation capacity building. They have implications for evaluation capacity building elsewhere and for the application of a Vygotskian perspective to capacity building.

The major results with implications for evaluation capacity building provide additional evidence for some of what we know about effective teaching and learning when involving K–12 personnel in evaluation activities:

- The format of the delivery of PD (large group vs. small group or individual) can affect the learning of the PD participants with the least familiarity with evaluation. Faculty and staff's prior knowledge in our study was less than the administrators' prior knowledge; it is likely that the faculty and staff preferred small group sessions and individual consulting because they perceived that the PD better addressed their needs in these settings. In the smaller sessions, semiotic mediation occurred more effectively. The interviewees were in agreement that the PD adequately conveyed the importance of the evaluation tasks and that the school personnel understood this importance, thus reflecting a common understanding among the evaluators and the school personnel, but clearly the faculty and staff had more difficulty with other aspects of the PD. Learning occurs when learners' ZPDs are appropriately addressed. These findings have obvious implications for capacity building, including that (a) the format of the delivery of capacity building should be tailored to the PD participant

and (b) the depth and breadth of PD participants' prior knowledge of evaluation should be assessed before involving them in capacity building.

- K–12 school administrators might be more amenable to evaluation capacity building than school faculty and staff. Our findings showed that the administrators had favourable perceptions about evaluation in general and about participating in the evaluations. Faculty and staff's perceptions were less favourable. No doubt this is due to prior experience, but also it is likely due to professional interests and obligations. The results also suggest that the administrators learned more about evaluation than the faculty and staff. Faculty and staff are less likely to share positive perceptions of evaluation capacity building. These are not startling findings, of course, but they serve as a reminder that they should be kept in mind when planning wide-scale evaluation capacity building in K–12 schools. The population of potentially effective evaluation participants in K–12 schools does not necessarily include all school personnel.
- The perceptions of those not participating in evaluation capacity building are more likely to hinder faculty and staff than they are to hinder administrators. Faculty and staff in our study had to involve their colleagues in some evaluation activities such as data collection, apparently incurring resentment in some cases. As found previously (e.g., Cousins & Earl, 1995), the level of involvement in evaluation activities affects the perceived value of the activities. The organizational authority that evaluation capacity building participants bring to evaluation tasks when involving others in evaluation activities should be considered when carrying out evaluations.

The study also has implications for the application of Vygotskian theory to an examination of evaluation capacity building:

- The study provides a novel example of the application of psychological theory to evaluation. In our experience, the principles of psychology are rarely systematically applied to evaluation activities. Witness, for example, the dearth of attention in the evaluation literature to the psychological aspects of decision making that conceivably affect the use

of evaluation findings or to the psychological literature on judgment making that might be applied to how evaluators arrive at evaluative conclusions. This study is an effort to address that deficit. It applies a well-established learning theory that highlights how individuals learn.

- The use of Vygotskian theory to examine evaluation capacity building is consistent in many ways with OLT and other epistemological foundations for evaluation capacity building. The Vygotskian framework helped us focus on how teachers and learners came to share understanding as they interacted. Even more central to effective learning, the Vygotskian framework highlighted the need to attend to learners' ZPDs and the conditions within which they learn. Faculty and staff knew less about evaluation when they began their participation in the PD; they needed more attention than the administrators, and their learning occurred in smaller increments. Semiotic mediation was more likely to occur with faculty and staff when they learned in small group settings. Discussion of the theoretical foundation of these aspects of teaching and learning is missing from most of the evaluation capacity building literature.
- The study is a first step in learning how to apply Vygotskian theory to an examination of evaluation capacity building. We found that the Vygotskian framework is least useful for addressing the experiential aspects of evaluation capacity building, which of course are central to how organization members build their evaluation knowledge and skills. Our focus was on the instructional component of the capacity building; the primary strength of the Vygotskian framework is to help structure an instructional approach, not to help structure learning in the field.
- Using interviews when applying Vygotskian theory to the study of evaluation capacity building does not allow researchers to capture some of the nuances of the interaction among PD participants. For example, part of the reason that intersubjectivity and internalization were not coded in our results was because the interviews did not fully capture the details of school personnel's evaluation activities. We know well from the work of the second author in examining inquiry-based student learning (another constructivist activ-

ity) that observation methods are necessary to collect data on interaction among participants (e.g., Brandon, Taum, Young, & Pottenger, 2008). Observation methods are logistically difficult and cumbersome, as well as expensive, of course—thus our reliance on interviews in this study.

AUTHORS' NOTE

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