

*“In the beginning God created the heaven and the earth. And God saw everything that He made. “Behold,” God said, “it is very good.” And the evening and the morning were the sixth day. And on the seventh day God rested from all His work. His archangel came then unto Him asking, “God, how do you know that what you have created is ‘very good’? What are your criteria? On what data do you base your judgment? Aren’t you a little close to the situation to make a fair and unbiased evaluation?” God thought about these questions all that day and His rest was greatly disturbed.
On the eighth day God said, “Lucifer, go to hell.”*

-From Halcolm’s *The Real Story of Paradise Lost* quoted in Patton (1986).

University of Alberta

Examining Factors Affecting Evaluation Use: A Concurrent, Qualitative Study

by

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To my Grandfather

Abstract

Evaluation use is an area of research with important implications for evaluation theory and practice. A review of the evaluation use literature reveals the factors that affect evaluation use provide important implications for evaluation practice (Burr, 2009; Cousins & Leithwood, 1986). Using a concurrent, phenomenological approach, the current study examined a model forwarded by Peck and Gorzalski (2009) within an ongoing program evaluation at two sites. Three findings emerged from the analysis revealing implications for evaluation practice and research.

- 1) Conceptual and process use occurred at both sites.
- 2) Evaluation factors appeared to specifically affect process use, while contextual factors appeared to affect use in general.
- 3) Organizational receptiveness of evaluation and the evaluator's role emerged as two contextual factors affecting use.

The study also provides implications for evaluation use research, as the use of concurrent, qualitative methods used appear to be effective in investigating the factors affecting use.

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Thank you, Mom, Dad & Matthew; your support has been unwavering through the years, and I am all but certain I would not be where I am today without it.

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Chapter 1

Introduction

Evaluation use, defined as use of evaluation results and processes to change how a program operates or stakeholders' perceptions of a program (Patton, 2008), remains an area of research with important implications for evaluation theory and practice. A review of the evaluation use literature reveals issues important for informing practice. Specifically, these issues include the factors that affect use, such as stakeholder receptiveness to evaluation, and the relevance of the evaluation (e.g., Cousins & Leithwood, 1986; Johnson, Greenesid, Toal, King, Lawrenz & Volkov, 2005).

The focus of the present study was to assess the applicability of the model of evaluation use put forward by Peck and Gorzalski (2009). The reason this study investigated Peck and Gorzalski's model was because it was developed and tested empirically this is different from other models that were developed conceptually, but not empirically tested; (e.g., Kirkhart's (2000) *Integrated Theory of Influence* and Alkin and Taut's (2003) model of evaluation use. The present evaluation use study is unique in that it was undertaken concurrently with an ongoing program evaluation. This approach is contrasted with the majority of research on evaluation use that are based on a retrospective examination; that is, following the conclusion of the evaluation process (e.g., Burr, 2009, Cousins & Leithwood, 1986; Peck & Gorzalski, 2009). The intent of the current study was to investigate how well Peck and Gorzalski's model is transferable beyond the evaluation context in which it was initially created in order to help guide

evaluation practice. Prior to investigating Peck and Gorzalski's model, a description of the evaluation context is provided.

Program Evaluation Context

The purpose of the evaluation considered in the present research study was to investigate the implementation of the air cadet program at two Royal Canadian Air Cadet Squadrons. The selection criteria for each site in the evaluation was based on access to site attributed to previous, professional relationships.

The implementation of the air cadet program was informed by the overall aims of the air cadet program: To promote physical fitness for cadets, an interest in the Canadian Air Force, and encourage the development of positive Canadian citizens. The audience for this program was male and female cadets, aged 12-18. The Air Cadet Program offers many activities to the cadets, including training in aviation, leadership, physical fitness, and citizenship. The immediate outputs of these activities include increased knowledge in aviation and leadership topics; increased experience in teaching, acting as a leader, and community involvement; and increased confidence in personal deportment and leading subordinates. Program outcomes are cadet specific and include development of transferable skills (i.e., public speaking ability, leadership skills); being active community members; an interest in aviation-specific and physical fitness activities; and increased cadet self-confidence. Impacts of the program are cadet- and program-specific: Cadets develop life-long contacts, are active leaders in the community, and continue to show an interest in aviation activities. From the program

perspective, impacts include unit viability through increased retention and recruitment of paid and volunteer staff (see Figure 1 for program logic model).

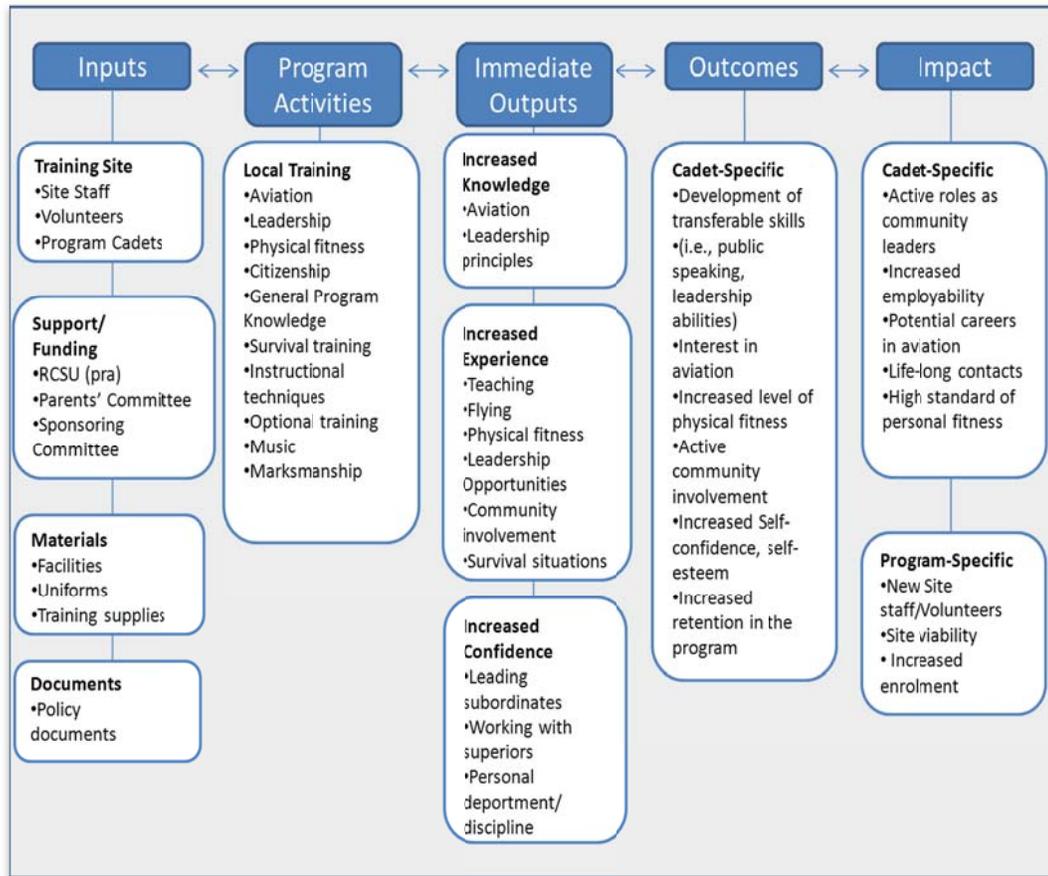


Figure 1: Air Cadet Program Logic Model

Numerous stakeholder groups are involved in implementing and maintaining the cadet program at the local level. The program is run locally by volunteer and paid part-time unit staff, including the unit commanding officer and training officer. Units are typically supported financially by sponsoring and parent committees. Logistical support is provided by the Department of National Defense, specifically the Regional Cadet Support Unit (Prairie) (RCSU (pra)) (see Figure 2 for program stakeholder map). During the evaluation, two key

stakeholders were identified at each unit to serve as the main contacts: the squadron commanding officer and training officer. These positions were identified as important to the evaluation because of their importance at each unit for decision making and resource allocation. First, the commanding officer is in a position to make decisions regarding resource allocation (i.e., staffing, financial resources); second, the training officer is in a position to make decisions regarding which training activities to implement.

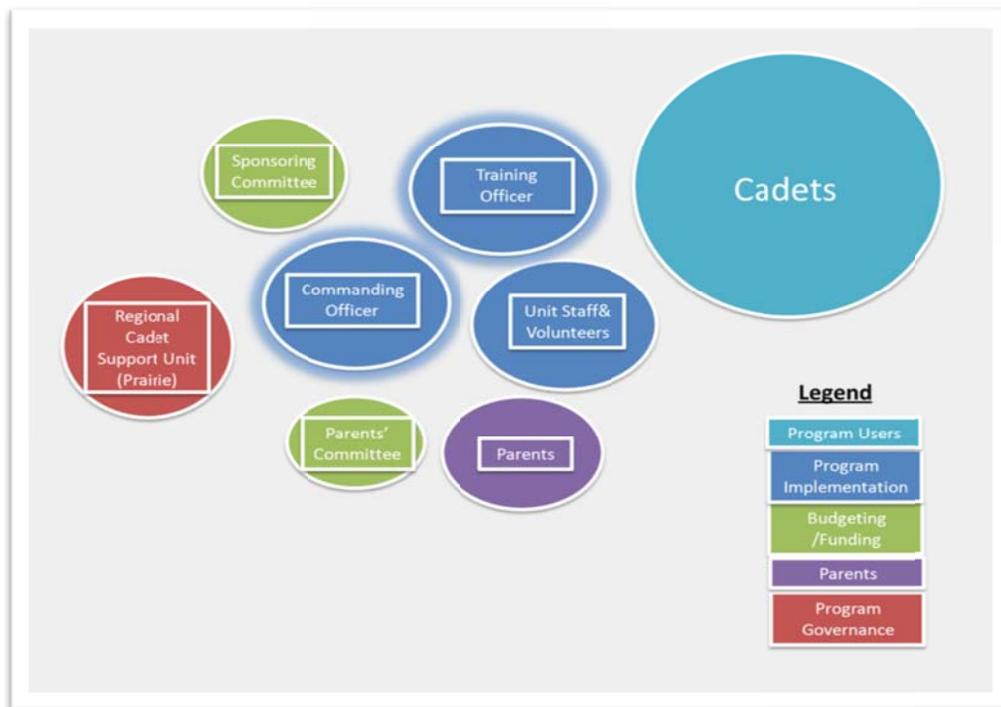


Figure 2: Air Cadet Program Stakeholder Map

The timing of the evaluation was critical as the program was in state of transition prior to the evaluation being conducted. To enhance cadet engagement, classroom training was shifting from traditional teaching methods (e.g., lectures) towards an increasingly learner-centered training program, with a focus on utilizing methods of instruction (i.e., group discussions and instructional games).

Further, RCSU (Pra), the governing body for cadet units in Alberta, Saskatchewan, Manitoba, and Northwest Ontario, was undergoing a significant change, moving from a decentralized command structure, with separate detachments monitoring and supporting units in each province, to a centralized command with all monitoring and support located in Winnipeg. The evaluator initiated the current evaluation because, through his involvement with the Air Cadet Program, he identified that the program had yet to be examined. The evaluation sought to (a) compare staff and cadet perceptions of the new training program as well as the effects of the re-organization of the central command structure, and eventually to (b) inform future programmatic decisions to better meet the needs of the cadets in an effort to address dwindling enrolment rates.

Specifically, the key evaluation question was: *What similarities and differences between and within air cadet squadrons exist regarding the perceptions of squadron staff and cadets with respect to the training program?*

To effectively answer this question, six enabling questions were developed:

- 1) What training activities are offered to cadets?
- 2) How engaged are staff and users in training activities?
- 3) What influences staff and users to join and remain in the program?
- 4) What effect do factors such as communication, instruction, and training department organization have on training plan implementation?
- 5) How do cadets perceive their training experience?
- 6) What perceived effect does the reorganization of RCSU (pra) have on program administration?

The evaluation was carried out in April and May, 2010 using two data collection tools: questionnaires and site visits. Two questionnaires were developed: one for cadets and a second for staff. The cadet questionnaire contained 29 items related to four areas: reasons for joining and remaining in the program, activities they participated and were interested in, perceptions of instruction received, and communication preferences. This was administered to the cadets during a regularly scheduled training night. Approximately 40 of the 60 cadets at each unit completed and returned the questionnaire. The staff questionnaire contained 23 items and focused on years of service, awareness and perceived importance of activities, perceptions of instruction, and feedback regarding the RCSU (pra). The questionnaire was administered to the staff at both units on the night of the first respective site visits and was to be returned to the evaluator prior to the end of the fourth visit. All staff members ($n = 5$) at the rural unit completed and returned the questionnaire, while almost all staff members ($n = 10/12$) completed and returned the questionnaire at the urban unit. Additionally, four site visits were conducted at each unit during scheduled training nights. The purpose of these site visits was to observe the format of the training night, availability of resources (i.e., facilities, teaching aides, and human), and the level of interaction between staff and cadets. Upon data collection completion, the evaluator analyzed, interpreted, and compiled a final report specific for each unit and delivered to the key stakeholder in June, 2010.

Two challenges emerged as the evaluation progressed. First, the evaluator had difficulty in facilitating buy-in to the evaluation process from staff members

at his home unit. Second, units were to submit their training plans for approval at the end of June. As data collection for the evaluation was completed at the end of May, the turnaround period for completion of the reports needed to be timely in order to allow for the findings to inform the respective unit training plans.

The Researcher's Dual Roles

The researcher played dual roles, both in the context of the current study and the urban air cadet unit. First, within the context of the current study, at the same time he was the evaluator, he was also the evaluation use researcher. Second, at the urban site, at the same time he was the evaluator, he was also working as the training officer at the urban site, and was to transition into the role of the commanding officer in the following training year. As a result, his roles at each of the evaluation sites differed; at the urban site, he had a dual evaluator/training officer role; whereas, at the rural site, his sole role was as the evaluator. What was afforded by this dual was that his familiarity with the program from his long-standing involvement provided contextual understanding of the program which in turn simplified the evaluation planning process.

Organization of Thesis

This thesis is organized as follows: Chapter 2 reviews the literature relevant to the study; Chapter 3 presents the research methodology; Chapter 4 reports the key findings related to the types of evaluation use; Chapter 5 details the factors that affected evaluation use; Chapter 6 discusses the results as well as limitations of the current study, the implications for practice, and recommendations for future research.

Chapter 2

Literature Review

Attention to the factors that affect stakeholders' use of evaluation findings as well as their use of evaluation processes remains an important consideration for evaluators yet little exists to guide practice. It is the promotion of use of evaluation findings that continues to be identified as a key responsibility of evaluators (e.g., Patton, 1988a; Preskill & Caracelli, 1997). What is surprising is the limited availability of empirical research to guide evaluators with regards to promoting use. Furthermore, the available research (e.g., Burr, 2009; Peck & Gorzalski, 2009) is restricted by its use of retrospective methods to capture stakeholder and evaluator perspectives. These methods call into question the trustworthiness and confidence because of the potential for recall bias (Ayhan & Isiksal, 2004). This is because the data collected is reliant upon the abilities of the evaluator and stakeholders to recall and reflect upon what happened in the evaluation after it has been completed. In contrast, concurrent methods in which the data are collected as the evaluation proceeds overcome the lack of full recall. This review of the literature begins by operationalizing the term *evaluation use*, followed by a discussion of use in practice, the factors affecting use, and models of use. The final section of the literature review outlines the need for the present study and introduces the research question.

Defining Use

The definition of *evaluation use* has become increasingly comprehensive over the past three decades. In the early 1980s, *use* was narrowly defined as the

use of evaluation findings to make programmatic changes or alter stakeholders' perceptions of a program (Leviton & Hughes, 1981). Recent definitions of the term (e.g., Christie, 2007; Patton, 2008) have expanded the definition to include how the evaluation process itself is used (e.g., promotes *evaluative thinking* among stakeholders). Studies examining how evaluation findings are used in practice initially identified three types that remain important for identifying use of evaluation findings in practice: instrumental, conceptual, and symbolic use. Expanding beyond the use of findings, evaluation use researchers later identified a fourth type of use related to the impact of the evaluation process itself.

Instrumental use was introduced by Alkin (1985) and continues to be defined as the direct use of evaluation results and findings to make changes to a program. Recent research has found that instrumental use has received relatively greater attention in the literature when compared to conceptual and symbolic use (Burr, 2009). Burr posited that observable changes to a program were relatively easier to measure and identify compared to other types of use. However, instrumental use is rare in practice due to the potential impact of barriers, such as insufficient stakeholder interest or minimal resource availability (Taut & Alkin, 2003).

The second type of use identified is *conceptual use* (Alkin, 1985) and is defined as the use of evaluation results to change stakeholders' perceptions and opinions of a program, but without actual changes to the program itself. Inconsistencies have existed in the literature regarding what is considered conceptual use. Leviton and Hughes (1981) argued that mere stakeholder

consideration of evaluation results does not satisfy the requirements of conceptual use. Conversely, Alkin (1985) suggested that in some cases, this might be the sole outcome of an evaluation. Regardless of the challenges to the definition, conceptual use remains the most common form of use in evaluation practice, as this type of use is not subject to the barriers that inhibit instrumental use (Taut & Alkin, 2003).

The third type of use, *symbolic use*, is defined as to the use of an evaluation, not the results, to persuade or to convince decision makers to pursue a desired course of action such as increasing funding for a program area (Burr, 2009). Symbolic use remains a subject of contention among evaluators because of differing perceptions of its purpose (Burr, 2009; Fleischer & Christie, 2009). Fleischer and Christie state that some argue using evaluation as an accountability tool represents symbolic use. They also argue that symbolic use is often misused and that, in some cases, stakeholders use the results of an evaluation to further the agenda of the decision maker. As evaluators identified use as a result of the evaluation process, separate from the evaluation findings, a more comprehensive definition of evaluation use emerged: the effect that evaluation participation has on a program and its stakeholders (e.g., Christie, 2007).

Process use emerged when evaluation use researchers realized that evaluation use extends beyond the use of the findings. Patton (1978) first coined the term and most recently defined it as “cognitive, behavioural, program, and organizational changes resulting from engagement in the evaluation process and learning to think evaluatively” (Patton, 2008, p. 155). Specifically, process use

refers to stakeholder learning about evaluation and how it can be incorporated into their program as a result of participating in an evaluation. The body of literature during the last decade has focused largely on process use (e.g., Amo & Cousins, 2007; Fleischer & Christie, 2009), and builds upon early use research, primarily focused on the use of evaluation findings (e.g., King & Pechman, 1984; Mowbray, 1988).

Use in Practice

The use of evaluation findings and processes was not generally considered by most to be the responsibility of the evaluator to encourage and promote (Scriven, 1991). In fact, evaluators' lack of attention towards use was reflected in their criteria for judging the quality of an evaluation, such as the validity and reliability of the findings. Yet, meeting these criteria was found to be of less relevance to evaluation users (Patton, 1991). However, evaluation use began to command more attention as an indicator of a successful evaluation at the 1987 American Evaluation Association annual conference where Michael Quinn Patton and Carole Weiss engaged in a debate regarding the responsibility for use in practice. Patton (1988a, 1988b) maintained that evaluation use should be a key responsibility of the evaluator while Weiss (1988a, 1988b) posited that the primary responsibility of the evaluator is to conduct the evaluation, leaving use largely as the responsibility of the stakeholders.

Since the Weiss/Patton debate, use has become an important consideration for nearly all evaluators (Preskill & Caracelli, 1997). In fact, evaluation use has been explicitly and implicitly referred to in standards and ethics documents

available through the American Evaluation Association and the Canadian Evaluation Society (i.e., *The program evaluation standards* (2010); *The CES competencies for Canadian Practice* (2010)).

Factors Affecting Evaluation Use

During the past 30 years, studies of the factors affecting evaluation use have generated a substantial body of literature (e.g., Alkin, 1985; Alkin & Taut, 2003; Cousins & Leithwood, 1986; Johnson et al., 2006; Leviton & Hughes, 1981; Peck & Gorzalski, 2009). As use became an increasingly important consideration for evaluators, it became critical to identify how to facilitate it in practice. Multiple perspectives with respect to factors affecting use have emerged and while a number of different taxonomies of factors have been introduced, they have a number of key similarities and are discussed in terms of human, evaluation, or contextual factors.

Human factors.

Human factors have multiple definitions in the evaluation use literature; despite this, commonalities exist among the differing definitions (i.e., Alkin, 1985; Alkin & Taut, 2003; Johnson et al., 2005). Peck and Gorzalski (2009) defined the factors as those pertaining to the evaluator. Specifically, these researchers refer to factors such as the evaluator's commitment to use, willingness to include stakeholders in the evaluation process, rapport with stakeholders, attention to the political context of the program, and credibility as perceived by the stakeholders. Alternative definitions of human factors exist in the literature. Whereas Alkin (1985) referred to human factors as those pertaining to both the

evaluator and the stakeholder, later Alkin and Taut (2003) referred to human factors as those pertaining only to the stakeholder.

Human factors have been implicitly discussed elsewhere in the literature. For example, Cousins and Leithwood (1986), Johnson et al. (2005), and Leviton and Hughes (1985) identified evaluator credibility as a factor that affects use. However, where Leviton and Hughes consider it as a factor in and of itself, both Cousins and Leithwood, and Johnson et al. included evaluator credibility as one of many factors of evaluation implementation. Furthermore, researchers have classified the human factors described by Peck and Gorzalski from differing perspectives. For example, Peck and Gorzalski identify attention to the political climate as a human factor, whereas Cousins and Leithwood and Johnson et al. consider “political climate” a characteristic of policy setting. As well, where Peck and Gorzalski refer to “involvement in the evaluation” as a human factor, Johnson et al. refer to it as a characteristic of stakeholder involvement. Additionally, some factors identified by Peck and Gorzalski appear to be absent from other research on factors affecting use. Specifically, the evaluator’s rapport with stakeholders and the evaluator’s commitment to evaluation use appear to receive no attention in the works reviewed.

Evaluation factors.

Evaluation factors have multiple definitions in the evaluation use literature; despite this, commonalities exist among the differing definitions (i.e., Alkin, 1985; Alkin & Taut, 2003; Johnson et al., 2005). Peck and Gorzalski (2009) defined evaluation factors as those pertaining to the evaluation procedure

and methods. In their definition, they included elements such as reporting requirements (i.e., type of report and the information requested by stakeholders, relevance of the information provided, and timeliness of the information); quality and quantity of interactions and communications with stakeholders; and sophistication of the data collection methods. Similar to human factors, there has not been consensus in the literature with regards to what evaluation factors encompass. In 1985, Alkin originally defined evaluation factors in a manner similar to the definition put forward by Peck and Gorzalski; however, other researchers (e.g., Alkin & Taut, 2003; Cousins & Leithwood, 1986; Johnson et al., 2005) defined evaluation factors as those pertaining to both the evaluation and the evaluator. Similar to human factors, the inconsistent definition of what evaluation factors entail has made it difficult to validly study these factors in practice as the criteria regarding what an evaluation factor is unclear.

Similarities in identifying evaluation factors exist in the literature, despite challenges in developing a consistent definition of the term. For example, Cousins and Leithwood (1986), Johnson et al. (2005), and Leviton and Hughes (1985) all refer to the importance of the relevance of the evaluation; stating that the evaluation should answer questions that are pertinent to the stakeholders. These researchers also identify communication with the stakeholder (i.e., the quantity and quality of the interactions) along with the ability to present a clear and concise evaluation report as important factors that affect use. Further, Cousins and Leithwood, and Johnson et al. address the importance of reporting all evaluation findings in a timely fashion; whether positive, negative, or neutral.

Finally, these authors expand on the importance of the methods and procedures used in an evaluation, suggesting that a key determinant of use is matching the sophistication of the methods used to the sophistication of the program under investigation.

Contextual factors.

Contextual factors have multiple definitions in the evaluation use literature; despite this, commonalities exist among the differing definitions (i.e., Alkin, 1995; Alkin & Taut, 2003; Cousins & Leithwood, 1986). Peck and Gorzalski (2009) defined contextual factors as those pertaining to the stakeholder and the context in which the evaluation was conducted. Specifically, Peck and Gorzalski's definition includes elements such as pre-existing evaluation bonds (e.g., fiscal constraints, contractual obligations, and organizational policy) and project characteristics (e.g., how long the program has been operational, the program's innovativeness, and its overlap with other programs). Further, in definition of contextual factors Peck and Gorzalski included stakeholder characteristics such as stakeholder interest in the evaluation and the stakeholder's commitment to use, role within the program, professional style, and information preferences.

In the past 15 years, evaluation researchers have acknowledged the critical importance of context in facilitating evaluation use (i.e., Cousins & Shulha, 1997; Peck & Gorzalski, 2009; Vanlandingham, 2010); however, as with human and evaluation factors, there are multiple definitions of contextual factors in the literature. In contrast to Peck and Gorzalski, Alkin (1985) and Alkin and Taut

(2003) refer to contextual factors as those pertaining to only the context of the organization. Other use researchers (i.e., Cousins & Leithwood, 1986, Johnson et al., 2005; Leviton & Hughes, 1985) refer to context only implicitly. In fact, Cousins and Shulha (1997) identified that a critical shortcoming of Cousins and Leithwood's (1986) review was that it did not adequately consider context. Cousins and Shulha's criticism highlights the inconsistent definition of this term as many of the factors identified in Cousins and Leithwood's work are considered contextual factors based on the definition posited by Peck and Gorzalski.

Similarities exist, however, with regards to contextual factors in the literature. For example, stakeholder involvement and receptiveness to evaluation has been consistently identified by researchers as an important factor in affecting use (e.g., Alkin, 1985; Alkin & Taut, 2003; Cousins and Leithwood, 1986; Johnson et al., 2006; Leviton & Hughes, 1981). As well, both Cousins and Leithwood, and Johnson et al., refer to the importance of the information needs of the stakeholders and the types of decisions that need to be made based on the results of the evaluation.

Methods in Use Research

A meta-analysis of evaluation use studies reveals the prominent use of qualitative methods (Brandon & Singh, 2009). According to Brandon and Singh, a large proportion of the evaluation use literature utilizes qualitative measures such as interview protocols, naturalistic observations and narrative reflection. These methods have been identified as the most appropriate manner in which to study use (King & Pechman, 1984; Shulha & Cousins, 1997) as they are effective

at generating findings unique to the context under investigation, whereas quantitative methods are typically used to generalize findings from a sample to the population. A qualitative approach is important in evaluation research, as attending to context has been identified as a critical factor affecting evaluation use (Alkin, 1985; Peck & Gorzalski, 2009).

The qualitative methods used in evaluation use research present two limitations (Brandon & Singh, 2009; King & Pechman). First, many of the studies investigating use employ retrospective data collection methods (Peck & Gorzalski, 2009); that is, data is collected from evaluators and program stakeholders after the evaluation has been completed. This data collection method calls into question the trustworthiness and confidence of the data, as the information collected is reliant on the recall ability of research participants. In contrast, collecting data as an evaluation is ongoing; that is, concurrently, has the main advantage of enhancing trustworthiness of the data because recall bias is minimized (Ayhan & Isiksal, 2004). However, using concurrent methods in evaluation research tasks the evaluator and the participants with additional data collection responsibilities to the evaluation process, itself. A second limitation in the use literature is that while many of the studies identify the factors and discuss their importance, very few studies examined how the factors interact with one another to promote use (Alkin & Taut, 2003).

Models of Evaluation Use

Few studies have provided an account or model of how the factors affecting use interact in promoting use despite the body of research examining

the factors, themselves. (e.g., Alkin, 1985; Cousins & Leithwood, 1986; Johnson et al., 2006; Leviton & Hughes, 1981). The following section introduces two models of factors affecting evaluation use. As the current study investigates Peck and Gorzalski's (2009) model, their work as well as Alkin and Taut's (2003) model, from which Peck and Gorzalski's work was largely developed is provided here.

Alkin and Taut (2003) developed a conceptual model of evaluation use based on human, evaluation, and contextual factors. In their model, they suggested that any number of interactions between the three sets of factors will affect use of the evaluation. However, they suggested that regardless of the interactions, evaluation factors are the most important in affecting use, a position held by other researchers (Johnson et al., 2009; Fleischer & Christie, 2009). Alkin and Taut also suggested that evaluations are most likely to be utilized when stakeholders are actively involved in the evaluation process, similar to the *personal factor*, coined by Patton (2008).

Three criticisms have emerged with respect to Alkin and Taut's (2003) work related to the relevance of their model for research and practice. First, their definitions of the factors are inconsistent with definitions found elsewhere in the literature, specifically the categorization of evaluation and human factors (i.e., Alkin, 1985; Cousins & Leithwood, 1986). Whereas Alkin's earlier work (1985) included both stakeholder and evaluator characteristics within the domain of human factors, Alkin and Taut included the evaluator characteristics within the domain of evaluation factors. The second criticism is that Alkin and Taut's model

has had minimal empirical testing (Peck & Gorzalski, 2009); that is, while their model provides a sufficient conceptual account of evaluation use, it lacks sufficient evidence to be applied in practice. The final criticism of this model is that while it illustrates relationships among the three sets of factors, it posits that there are no dependencies among the factors across the three factors; that is, it supposes that one factor is not dependent on the presence of other factors affecting use.

Expanding on the work of Alkin and Taut (2003), Peck and Gorzalski (2009) developed a model where human and evaluation factors interact with one another and are bounded by contextual factors. They continue by suggesting that these factors create a “backdrop” to type of change that is being proposed (i.e., behavioural or structural) and the type of use that will occur (i.e., findings or process use). Additionally, they posit that evaluation use occurs along a continuum, with use occurring during and after the evaluation process.

Three findings related to the types of use that occurred and the factors affecting them emerged from Peck and Gorzalski’s (2009) study. First, they found that conceptual use was the most common type of use to occur. Second, they identified human factors, such as post-evaluation interaction with stakeholders, as important in affecting use. They also discussed how the type of use was somewhat dependent on the time point in the evaluation; that is, process use was more likely to occur at an immediate time point, instrumental use was more likely to occur end-of-cycle or long term, and conceptual use was prevalent

at all three points. Although their study identified specific types of use, this was not reflected in their model.

The findings related to which factors predominately affected use reported in Peck and Gorzalski's (2009) model do not align with findings reported in other research (Alkin & Taut, 2003; Cousins & Leithwood, 1986). While Peck and Gorzalski's (2009) model suggested that contextual factors are most important in affecting evaluation use, Cousins and Leithwood (1986) and Alkin and Taut (2003) suggested that factors pertaining to the evaluation and the evaluator are most important.

Need for the Present Study

The present study contributes to the literature in two ways: conceptually and methodologically. Peck and Gorzalski (2009) and Alkin and Taut (2003) focused on defining and developing models of evaluation use that are either conceptual in nature (e.g., Alkin & Taut) or based on findings using retrospective methods, yielding examples from past evaluations (Peck & Gorzalski; Burr, 2009). Consequently, there is a need to conduct a research study concurrently with the conduct of a program evaluation.

The present study was designed to address this need by simultaneously conducting an evaluation of two Air Cadet Units in Alberta while simultaneously examining the factors that affect the use of evaluation processes and findings. In the context of the ongoing program evaluation, outlined in the introduction, the current research was guided by the following research question:

To what extent does a concurrent account of evaluation and contextual factors in practice align with the model of evaluation use developed from Peck and Gorzalski's (2009) model?

The methods used to conduct the research study are described in Chapter

3.

Chapter 3

Methods

This chapter describes the methods used in the current study, specifically outlining the (a) qualitative research approach, (b) ethical considerations, (c) research participants, and (d) data collection and analysis procedures.

Qualitative Research Approach

A concurrent, qualitative approach was used to address the research question: *To what extent does a concurrent account of evaluation and contextual factors in practice align with the model of evaluation use developed from Peck and Gorzalski's (2009) model?* The approach was grounded in the phenomenological tradition where the central tenet is to capture individuals' experiences of a phenomenon (Creswell, 2007). There were three reasons that the phenomenological approach was appropriate for the current study include the following. First, collecting data concurrently limited the effects of participant recall bias during the evaluation (Ayhan & Isiksal, 2004). Second, using a naturalistic approach allowed for meaning to be generated from the perspectives of the research participants within the unique contexts of the evaluation (Bogdan & Biklen, 2007; Brandon & Singh, 2009; King & Pechman, 1984). Finally, inductive data analysis allowed for the interpretation of participant perceptions without a specific theoretical lens.

Ethical Considerations

Four ethical considerations were taken into account throughout data collection, analysis, and reporting. First, prior to carrying out data collection, the

researcher requested and received approval from the Education, Extension, Augustana, and St. Jean Research Ethics Board at the University of Alberta. Second, before conducting the interviews, participants were asked to read a project information document and to sign an informed consent form, detailing their rights and roles in the research project. A copy of the letter intent and consent form can be found in Appendix A. Third, all data (interview transcripts, audio recordings) were stored on the researcher's password protected laptop and were only accessible to him and his supervisor. Fourth, to protect the confidentiality of the research participants, pseudonyms were used: at the rural site, Ray is the commanding officer and Ron is the training officer and at the urban site Chris is the training officer and Charles is the incoming commanding officer, as well as the researcher. .

Participants

The current research compares two sites and was conducted with two officers from two cadet squadrons in Alberta, one in a rural location and one in an urban location. These sites were selected because of previous professional relationships developed with the researcher. Purposive sampling, defined as selection of research participants based on whether or not they would be appropriate for the study (Creswell, 2007), was employed in the present study. The participants were selected based on their roles at their respective squadrons. Each unit's training officer and commanding officer for the 2010-2011 training year participated in the research study. These officers were identified because of their key positions at their respective squadrons. Further, the respective training

officers and commanding officers made decisions regarding resource allocation (i.e., funding) and what would be included in the training program (i.e., which activities to offer).

Data Collection

There were three sources of data for the current study including two primary data sources and one secondary data source. The primary data sources included both interviews with the four participants and researcher reflections generated from site visits and interviews. The secondary data source was the two site-specific program evaluation final reports.

Interviews.

Eight semi-structured interviews were conducted between May and June of 2010, with each participant completing an interview at two points during the evaluation study. The purpose of these interviews was to gather their impressions and perspectives regarding the evaluation while it was ongoing. The first series of interviews were conducted while the evaluation was ongoing and the second series of interviews were conducted after each of the unit reports had been prepared and distributed to the respective stakeholders.

Interviews are a common instrument in evaluation research (Brandon & Singh, 2009). It is an effective tool in determining participants' perceptions regarding a particular issue or phenomenon (Warren, 2001; Warren & Karner, 2010). The purpose of the current research was to ascertain feedback from participants regarding their perceptions of the evaluation in which they participated. To this end, interviews allowed the researcher to elicit specific and

detailed responses from participants and to gain further insight into their feedback through further probing of responses. Further, interviews allow for participant feedback that was unexpected by the researcher, a flexibility that is not afforded by quantitative measures.

Interview protocol development.

The first set of interviews focused on officers' previous experience with program evaluation, in general, and on their perceptions of the current evaluation process, including what they wanted to learn. The questions for the initial interview were developed based on the interview protocol used by Peck and Gorzalski (2009) and questions developed by Burr (2009). Further, to address gaps in the questions developed by Peck and Gorzalski and Burr, additional questions were developed by the researcher. These additional questions focused on evaluation, and contextual factors, as well as questions specific to the current evaluation. A copy of the initial interview protocol is provided in Appendix B.

The post-evaluation interview protocol was developed to investigate the officers' perceptions regarding the full evaluation process, from planning to dissemination of the evaluation report and to ascertain how each participant intended to use the evaluation findings and whether or not they would be likely to participate in future evaluations of their training programs. As with the initial interview protocol, questions in the post-evaluation interview protocol were developed from existing instruments used by Peck and Gorzalski (2009) and Burr (2009). Although these instruments had questions pertaining to participants'

perceived credibility of the evaluator, the researcher in the current study specifically chose not to ask these questions: Given the researcher and the evaluator were the same person, there was an increased risk of bias in participants' responses from the researcher asking about his own credibility. Additional questions were added to the post-evaluation interview protocol to address the specific evaluation and gaps in questions asked in Peck and Gorzalski's and Burr's instruments. A copy of the post evaluation interview protocol is provided in Appendix C.

The interviews of the two officers at the urban center were conducted in person. The interviews of the two officers at the rural location were conducted using MSN Messenger, a software application, to address issues of distance and cost (Mann & Stewart, 2001). Fontana and Frey (2008) suggested that the benefits of using online messaging technology include affording the interviewer extra time to form follow-up questions as well as lessening the logistical burden (i.e., long distance telephone costs, travel to and from the interview site). However, they also indicated two shortcomings of online interviews. First, online interviews typically take longer to complete than their face-to-face counterparts, and second, the loss of non-verbal cues (i.e., facial expressions) make it difficult to infer deeper meaning.

The interviews at the urban location were conducted in a private office and at a time of mutual convenience for the participant and the interviewer. Prior to the beginning of the interview, the interviewer reviewed the purpose of the questions, the participants' rights as a participant in the study, and addressed any

concerns the participants had. Each interview was audio-taped to fully capture what was said by the participants, and lasted from 30 to 45 minutes. Given the researcher was also a research participant; his interview was conducted by a second person not involved in the study. This person was a colleague of the researcher who participated in the cadet program at a third unit. The researcher reviewed the interview protocol with the interviewer and provided a training session, including the appropriate use of probing questions.

MSN Messenger was used to conduct the interviews with participants at the rural site, as it was an application both were most comfortable using when compared to other programs (i.e., Skype). Similar to the interviews conducted at the urban location, each online interview was held at a time of mutual convenience for the officer and the researcher. As with the face-to-face interviews, the interviewer reviewed the interview purpose, along with ethical considerations and addresses participant questions. Each interview lasted from between one and two hours. Emoticons and clarifying questions were used to augment the lack of non-verbal cues.

Researcher reflections.

Researcher reflections have been identified as a meaningful data source to supplement interview data (Warren & Karner, 2010). Therefore, to support data and information collected from the participant interviews, the researcher maintained a log of reflections throughout the entire evaluation, which served to document his observations throughout the research process. The researcher made notes in the log at specific points during the evaluation (i.e., after each of the

interviews and site visits), as well as on an ongoing basis during the course of the evaluation. The reflections allowed the researcher to document his insights and perspective regarding the interviews and staff behaviour during the site visits while the evaluation was in progress (Bogdan & Biklen, 2007). Further, the reflections aided in increasing the trustworthiness of findings through triangulating data from the notes and interview data (Creswell, 2007). An example is provided in Appendix D.

Evaluation reports.

The researcher used information from the evaluation reports provided to each unit, to act as a secondary data source. With a focus on identifying factors affecting use of the results and findings of the evaluation, it was important to ensure that the participants' claims of findings use made during the post-evaluation interview could be supported and clarified. Specifically, the evaluation reports were used to support participant responses regarding their initial perceptions of the report and how they intended to disseminate the results and incorporate them into their training plans.

Strategies for Enhancing Trustworthiness and Confidence of Data Collection

To enhance trustworthiness and confidence of the data collected, the researcher included three safe guards throughout the data collection processes: consistent use of the interview protocols, use of a reflective journal and identifying his personal biases. When conducting interviews, the researcher ensured that protocols for the first series of interviews as well as the post-evaluation interviews were consistently followed for all research participants, thus

ensuring comparability of administration across participants. As well, the researcher kept a reflective journal throughout the data collection process. This journal allowed him to track his perceptions and attitudes towards the research, the research participants, and the research phenomena. The reflective journal was also used to identify any personal biases that emerged and to address them so they did not affect the findings. Because of his involvement with both units, specifically his own, prior to conducting the evaluation and research, it was important to identify his biases to protect the integrity of the research findings. Specifically, the researcher acknowledged that he was expecting challenges with facilitating staff receptiveness of the evaluation at both units.

Data Analysis

Prior to beginning analysis, the researcher transcribed the audio tapes for the interviews conducted at the urban location verbatim. Due to the nature of MSN Messenger, transcripts of interviews with participants from the rural site were readily available to the researcher in the form of saved conversation logs. The transcripts were then reviewed by the researcher one week after the initial transcription was completed to check for accuracy of the transcription process.

Following completion of the transcription process, the data was imported into QSR N-Vivo version 8 for analysis. The first of four iterative steps began with an initial reading of the interview transcripts, as well as the field notes and the evaluation reports. This review was conducted in order to become familiar with the data and reflect on its overall meaning. Throughout this review, memos were kept to document thoughts regarding the data, the analysis process, and

perceptions regarding emerging themes (Warren & Karner, 2010). These memos allowed for the tracking emerging trends and reflections, as well as to connect common elements of the data together and to get a sense of the participants' perspective of the evaluation (Miles & Huberman, 1994).

The second iterative step in the analysis continued with the researcher reading through the transcripts for a second iteration, using a deductive approach to identify specific instances of evaluation use, as identified by the research participants. To supplement this data, and to confirm and extend upon emerging participant understandings of evaluation use, the researcher reviewed his reflections and the evaluation reports for instances of evaluation use. Upon completion of this initial coding of evaluation use, the researcher further coded these instances of use identified by type. Following this, the researcher reviewed the types of use to identify similarities and differences that emerged between the two sites.

During the third iteration, he utilized an inductive approach to identify the human, evaluation and contextual factors that affected use in this evaluation. Although Peck and Gorzalski (2009) and Alkin (1985) identified specific examples of human, contextual, and evaluation factors that affected evaluation use, these examples did not guide analysis in the current study. Rather, the researcher wanted to allow for the factors that were unique to this evaluation to emerge from the data. Where available, the researcher used data from the reflections to supplement the participants' interview responses. After identifying, and defining the *factors affecting use* codes, the researcher categorized the codes

as human, evaluation, or contextual factors. As with the types of use, the researcher then examined the data to look for similarities and differences in the factors that emerged between the two sites.

Once the analysis process was completed, the researcher employed a second independent coder to review the analysis. This coder was a staff member at a unit not involved with the research. The researcher provided the coder with excerpts from the interview transcripts, his reflections, and the evaluation report along with along with the code lists for type of use and factors affecting use and their definitions. He then asked the second coder to read through the data provided and to code it based on the codes and their definitions. Once this process was completed, the researcher and the second coder discussed their coding and identified any discrepancies that emerged. These discrepancies were then rectified, either by clarifying the code definitions or by re-applying the codes to the data, where appropriate.

Strategies for enhancing Trustworthiness and Confidence of Data Analysis

The research employed four safeguards to ensure trustworthiness and confidence in the data during the analysis process: verbatim transcription, memoing, the use of a second coder, and the use of multiple data sources First, all interviews were audio recorded and transcribed verbatim by the researcher. The transcripts of the interview recordings allowed the researcher to review participants' responses to the interview questions in greater depth. Second, the researcher used memoing as he read through the transcripts in order to track emerging themes. Third, a second coder reviewed the researcher's analysis to

ensure that the analysis could be replicated with similar results. Finally, multiple data sources were used to triangulate findings. The use of multiple data sources strengthened the findings by corroborating data from multiple perspectives, and provided a more comprehensive description of the research phenomena (Patton, 2002).

Chapter 4

Results: Evaluation Use

Evidence of the two types of evaluation use (i.e., findings and process) that emerged from the thematic data analysis across the two evaluation sites is presented in Chapter 4 and the factors that affect evaluation use are provided in Chapter 5. This order was adopted as it was important to establish the presence of evaluation use prior to examining the factors that affect evaluation use. In Chapter 4, instances of findings use (i.e., instrumental, conceptual, and symbolic) from the analysis of the post-evaluation interviews of research participants related to the evaluation reports are presented. Instances of process use emerged from the analysis of change between initial and post-evaluation interviews of the research participants. To protect the confidentiality of participants, the following pseudonyms were assigned (see Chapter three for more details): at the rural site, Ray is the commanding officer and Ron is the training officer and at the urban site Charles is the incoming commanding officer and researcher, and Chris is the incoming training officer.

Findings Use

This section reports the comparison of the instances of instrumental, conceptual and symbolic use of evaluation findings by the participants across the two sites in response to the findings provided to them in the evaluation reports.

Instrumental use.

No examples of instrumental use were reported as the concurrent design of the research study limited the ability of the researcher to investigate actual changes research participants made to their respective programs.

Conceptual use.

Evidence of conceptual use differed between the rural and urban sites in terms how the participants intended to use the results to inform their training programs and in terms of shifts in thinking regarding their respective sites because of the evaluation findings. Common across both the rural and urban sites was the intention to use the evaluation findings to inform decisions related to the unit training plan for the following year. However the focus differed across the sites: whereas the rural site focused solely on use for making decisions related to cadets' training activities, in addition to this focus, the urban site also focused on promoting staff cohesiveness. Beyond the intended use of the results, rural site participants also demonstrated conceptual use through reflecting on the findings related to how training was conducted at their unit. No additional examples of conceptual use emerged from the urban site participants.

The rural site participants (i.e., Ray and Ron) focused on responding to the evaluation findings related to cadet interest in and awareness of training programs. Ray described a plan to offer additional training opportunities not currently available at the rural site in response to the findings in the evaluation report that indicated a sufficient number of cadets were interested in participating in music and biathlon activities to warrant such programs. In addition, Ray reported an intention to increase the frequency of aviation and citizenship

opportunities that were already being offered at the rural unit, as feedback from the evaluation report revealed that cadets would be interested in participating in these activities if they were offered more frequently. Similar to Ray, Ron also focused on enhancing cadet interest and intended to increase the frequency of survival training and physical fitness activities in response to the findings that almost all cadets indicated that they were interested in participating in both of these activities. In order to begin addressing the varying levels of awareness of unit activities reported by the cadets (i.e., many cadets did not know how often citizenship activities were offered at the unit), Ron indicated an intention to use various means of communication to promote training opportunities. Specifically, to promote awareness of activities; such as parade night announcements, Ron described using methods of communication that “cadets are more likely to use.”

Similar to the rural site, the urban site participants (i.e., Chris and Charles) focused on enhancing cadet interest. Chris remarked that the evaluation results would be useful in making programmatic decisions with regards to which activities to offer cadets in the new training year. Specifically he was interested in investing his energy into training areas such as leadership and aviation training because of the evaluation report finding that many of the cadets were interested in learning more about these topics. Further, he intended to use the results to address some of the program aspects that evaluation findings suggested were of less interest to cadets. He described a desire for the activities, including drill training and wearing the uniform to become, “more palatable.”

Charles also described using the cadets' high ratings of interest with regards to aviation and survival activities when making resource allocation decisions. He suggested that the report findings should be used to make decisions about how "to invest resources into activities in which the cadets expressed interest." Charles discussed the under-use of alternate methods of instruction such as role-playing by instructors. He went on to indicate the need for more frequent use of alternate methods of instruction saying, "the cornerstone of the new program is that the cadets are supposed to be involved in dynamic, engaging, involved lectures...and the (evaluation) results showed that wasn't happening."

In addition to addressing issues related to cadet interest, urban site participants focused on using the findings to promote staff cohesiveness in response to the differing programmatic priorities revealed by the evaluation findings. Whereas questionnaire responses revealed staff all had differing ideas of what were important elements of the program, all agreed that parade night training and offering citizenship activities were very important parts of Air Cadet training. Chris reported that he intended to bridge differences amongst his team by creating a "focus on areas of common importance among the staff to develop a stronger team." Charles supported Chris' interest in developing a stronger team, suggesting that, as he was to become the commanding officer, it would be his role to facilitate cohesion among staff members. He went on to suggest that he would "bring the groups together, based on common focuses and facilitate that team environment to remember that (they are) there for the cadets."

Rural participants (i.e., Ray and Ron), provided an additional example of conceptual use by using evaluation findings to reflect on the successes and areas for improvement. Although Ray had been aware of the improvements that needed to be made related to training activities, the evaluation findings revealed that his cadets were generally satisfied with the unit and that “sometimes (he forgot) to celebrate the small victories... and (forgot) how good (they had) it.” He further supported his focus on improvement by stating that the evaluation findings helped him “to appreciate (his) current unit and still want to improve it.” Likewise, Ron indicated that the results of the evaluation helped him to reflect on both “strengths and weaknesses within the unit.”

Symbolic Use.

No examples of symbolic use of the evaluation findings emerged from the analysis of the interview transcripts for the four participants.

Process Use

Across both sites, the analysis of the post-evaluation interviews revealed the development of some evaluation skills from participating in the evaluation. Furthermore, participants also demonstrated valuing program evaluation activities because they helped understand program outcomes and inform program decisions. At the rural site, both Ray and Ron indicated they had minimal evaluation experience prior to the evaluation. Ray labeled his previous involvement in evaluations as “informal” and referred to conducting “audits on pieces of work.” He had never participated in what he called “a full program eval(uation).” Ron described his lack of experience as he did not “have much practical experience

with program evaluation.” At the urban site, Chris did not recognize any of his previous data collection experiences with a program evaluation, stating that he “participated in a lot of surveys before, but (was) never actually part of a formal program evaluation.”

Upon the evaluation conclusion, Ray, Ron, and Chris all demonstrated increased knowledge with regards to evaluation purpose, methods, and integration of evaluation into their units. They also saw the benefits of program monitoring and improvement. At the rural site, Ray described a need to collect more comprehensive information regarding his unit by building on the current evaluation’s methods: “Additional observations during training nights and mandatory training days would have been beneficial to paint a more comprehensive picture of our unit.” Ron supported Ray’s need for more comprehensive information, suggesting the use of “round table discussions and individual interviews to get more out of the cadet perspective in a more interactive environment,” referring to the individualistic nature of completing a questionnaire. Both Ray and Ron remarked that the questionnaire took too long to complete, and suggested shortening it to increase the accuracy of the results.

At the urban site, Chris’ feedback focused on utilizing data collection methods beyond what was used in the evaluation. He suggested the use of interviews or group discussions in future evaluations, and commented that future evaluations should be conducted earlier in the training year to yield findings that were “indicative of the training program.” Additionally, he suggested topics for

future evaluations including a focus on cadet retention and an evaluation of optional training activities.

Participants at both sites expressed interest in including evaluation components into their respective training programs. At the rural site, Ray reported evaluation could be used as part of the “continuous improvement plan at (his) unit.” At the urban site, Chris suggested that evaluation could become an integral part of the unit’s training program. He identified evaluation as an assessment tool to gather information about program impact, suggesting evaluation had the potential for measuring “the kind of changes... put in place according to the evaluation, (and whether they were) actually working.”

Summary

The analysis of the interviews provided evidence of conceptual and process use at both sites. However, participants at the rural site provided more examples of conceptual use than urban participants. Process use was also common at both sites: all research participants demonstrated increased knowledge with regards to evaluation purpose, data collection methods, integration of evaluation in the programs offered, and the use of evaluation results to monitor and improve programs.

Instances of instrumental and symbolic use were not observed in the current study. This is because research data was collected concurrent to the evaluation and as a result, the researcher could not collect evidence of actual programmatic change. Further, as symbolic use refers to the use of evaluation results to support an agenda or previously made decision, data identifying the

participants' agendas at their respective sites needed to be collected prior to the evaluation, but this was not done.

Given evaluation use was observed in the context of the current study, it was possible to examine the factors that affect the use of evaluation results and processes. Chapter five presents findings of this examination.

Chapter 5

Results: Factors Affecting Use

The current study was designed to investigate how human, evaluation, and contextual factors, as defined by Peck and Gorzalski (2009), affect the specific use of evaluation findings and processes. However, due to two limitations, only contextual and evaluation factors could be studied. First, the researcher occupied dual roles; whereas he was the evaluator at both sites, at the urban site he was also the training officer. This role was further complicated by his knowledge that he would become the Commanding Officer during the next year. Given these roles, collecting data regarding human factors such as evaluator interaction with stakeholders proved to be difficult. Second, the researcher had previously established professional relationships with study participants. Given these relationships, it was difficult to ascertain the effect of human factors such as evaluator rapport with stakeholders on evaluation use.

Ascribing specific types of evaluation use to each of the factors also proved difficult in the current study. Though the researcher had considered it useful to investigate which human, evaluation, and contextual factors specifically promoted instrumental, conceptual, symbolic, and process evaluation use, two

limitations prevented an explicit connection between the types of use and the factors. First, the researcher did not consider directly ask research participants what caused them to use the results and processes of the evaluation in the ways they did. As a result, he could not speak with any degree of certainty regarding which factors affected which of the types of evaluation use. Second, there was a lack of evidence of instrumental and symbolic use (see Chapter 4 for more detail). The remainder of Chapter 5 is thus limited to a discussion of the contextual and evaluation factors that affected conceptual and process use.

Evaluation Factors

Three evaluation factors emerged from the analysis of initial and post-evaluation interviews, and researcher reflections affected evaluation use at both sites: These factors are relevance of the evaluation questions, appropriateness of the evaluation instruments, and the timeliness of the evaluation.

Relevance of the evaluation questions.

The two participants at each site indicated during the initial interviews that five of the six evaluation questions (see Chapter 1) were relevant to their planning and informational needs. The following paragraphs address each of the five evaluation questions found relevant by research participants and the section concludes detailing the sixth question that was found to be irrelevant.

All four participants stated that the first evaluation question investigating the influences for cadets and staff to initially join and then later to remain with the air cadet program was relevant for addressing cadet retention issues currently challenging both units. Only the urban participants addressed staff retention.

With respect to cadets at the rural unit, both Ron and Ray remarked during the initial interview that knowing why cadets remain with the program would be useful when planning training activities. The importance of cadet retention was highlighted by Ron's statement that "retention is pretty much paramount." Similarly, Ray remarked that the results from this question would help to identify "what (their) key focus areas for retention should be." At the urban unit, Charles noted the importance of investigating cadet retention, remarking it was "becoming an increasingly larger issue in the program." Similar to Charles, Chris suggested the need to offer training activities that were of interest to cadets because he linked interest to attendance, suggesting they offer activities that make "cadets excited about coming out on a regular basis."

What was different between the sites was the notion by the urban participants that the evaluation would also provide guidance for staff retention. Both Chris and Charles acknowledged that that staff turnover had become an increasingly prevalent issue in their unit within the past few years. Chris reported that minimizing staff turnover would increase stability for cadets at the unit, as the experience and knowledge lost when staff members left would be mitigated: "It can be tumultuous when you have staff members coming in and out." Charles suggested that basing staffing decisions on the staff and volunteers' reasons for initial and current involvement with the program might serve as a "motivating tool" to remain with the squadron. The results of the evaluation would allow him to place staff in programmatic areas in which they were most interested.

The four participants stated that the second evaluation question, investigating the training opportunities that cadets were interested and involved in was relevant in addressing resource allocation (i.e., staff and funding) when planning for the next training year. At the rural unit, Ray was interested in aligning those activities with the highest cadet interest level to appropriately allocate staff and financial resources for the upcoming training year. Ron concurred suggesting the need for optimizing resource allocations to “determine if activities are being offered which may be taking away resources.” With a similar focus on resource allocation, Charles expressed interest in collecting evidence regarding levels of interest so that he could “see where (he could) start allocating resources for next year.” As well, Chris stated that some activities could be eliminated and new activities added if the results indicated cadets were not interested in certain activities: “consider moving in a little bit of a different direction and offer different activities.”

The third evaluation question, investigating the training opportunities available at the participants’ respective units, was relevant to Ray, Ron and Charles in terms of developing communication strategies to increase cadet awareness of activities offered at each unit. Chris identified the evaluation question as relevant in developing the training plan for the next training year. At the rural unit, Ray indicated “it’s always good to know the best ways to communicate the goings on of the squadron to the cadets. Many of our first years didn’t know they were allowed to participate in sports until too late in the year.” With a similar focus on effectively communicating to cadets, Ron suggested that

“if activities are being offered and cadets don’t know about them then that’s an issue that needs to be resolved.” At the urban unit, Charles expressed concern that cadets were not aware of activities offered at his unit and wanted to develop communication strategies to ensure that knew of the opportunities available to them. He described the issue as follows:

I mean we could be offering all of these fantastic programs, but if the word’s not getting out there, what’s the point, right? I want to use the results to try and tailor how we communicate activity information to the cadets.

Chris also indicated that this evaluation question was relevant, but in a different way. He saw the relevance was in terms of in tailoring the program as much as he could to the cadets’ interest. Specifically he stated “I want to see if we’re offering the right things, or if we’re not offering enough things.”

Whereas the fourth evaluation question, investigating cadets’ perceptions of their training experiences, was relevant to Ray and Ron in terms of the cadets training, the question was relevant to Charles and Chris in terms of instructor training. At the rural unit, Ray was interested in investigating whether or not cadets were engaged in and enjoying the training activities in which they were involved. He stated “We know that cadets are showing up (for parade nights) and other activities, but I’m never really sure if they’re enjoying themselves or learning anything.” Ron expressed a similar thought, noting that the cadets’ perceptions of the program “molds a lot of the way (he) approached the delivery of cadet training.”

At the urban unit, Charles and Chris indicated the evaluation question was relevant in providing tailored instructional techniques training to their instructors. Chris noted the transition to a training program that promoted cadet engagement and interaction and wanted to investigate whether an “exciting, and interactive program” was being delivered to the cadets and intended to use the feedback to provide guidance to the instructors. Similarly, Charles wanted to investigate instructor best practices at the unit to develop a common instructor training program. He explained:

So we can see instructor A does this, this, this and this; and this works for these kids. This is something that we can use to train the remainder of the instructors to make sure that they’re all using the same kind of tools to an extent, right?

The fifth evaluation question investigated the effect of factors related to communication and the training department on implementing the training plan. Ray, Ron and Charles all saw relevance in building capacity of their respective training department. Chris found the question relevant in improving communications at the urban unit. At the rural unit, both Ray and Ron mentioned that their training department had fewer staff when compared the urban unit: both participants were interested in increasing the size of this department. Ray indicated that he wanted to compare his unit with the urban unit because he was interested in learning from them: “(They’ve) got a pretty big training department and I’m really interested in seeing if we can do the same kinds of things here.” Ron agreed and remarked “it’s great to see how other units do things so we can

adjust our practices.” Charles reported relevance in terms of ensuring sufficient resources were available to effectively implement training. He wanted to ensure adequate capacity was available to effectively implement training, suggesting that “You could have the best intentions in the world, but if you don’t have the infrastructure in place to make that happen, then your training plan just isn’t going to work.”

In contrast to Ray, Ron, and Charles, Chris found the evaluation question relevant in addressing a communication gap between members of the staff. Specifically, she noted the need for greater communication saying “improving communication at our unit is important, especially for staff. It seems like a lot of times, we aren’t on the same page, so I’d like to address that.”

It is interesting to note that none of the four participants found the sixth evaluation question, pertaining to the reorganization of the regional cadet support unit (RCSU), relevant to their information needs. Specifically, both commanding officers remarked that the reorganization would affect only their work outside of the unit and would not affect the work of training officers at their respective units. At the rural unit, Ray said that he was the only staff member who regularly liaised with staff members from the RCSU; as such he was unsure of what value investigating the effect of the reorganization would add to the current evaluation focused on improving their unit. At the urban unit, Charles indicated “outside of the commanding officer, many staff don’t really know a lot about what’s going on with the reorganization because they haven’t had to deal with it.”

Both training officers reported that investigating the RCSU reorganization was not relevant to them because it had minimal effect on the way cadet training was conducted at their respective units. Ron indicated that the reorganization would not affect how he implemented training at his unit and added “the overall aim of the (Air Cadet) program won’t be affected.” Chris supported Ron’s position, as he perceived the reorganization would have “little impact on the training plan or how it’s executed at the squadron.”

Appropriateness of the data collection instruments.

Ray, Ron, and Chris remarked that collecting data using the questionnaire and observation protocol provided them with comprehensive feedback from the cadets. Given the dual roles Charles played during the evaluation (i.e., evaluator and participant), he had been involved in the development of the questionnaires, observation schedule, and the schedule for weekly visits. As a result he is not included in some of the discussion of the appropriateness of the data collection instruments. At the rural unit, Ray reported that he “like(d) how it combined observation with the surveys to get some well-rounded info.” Similarly, Ron stated that the questionnaire and observation “were appropriate tools” for use in the evaluation as “the observation kind of supported things that came out of the survey.” At the urban unit, Chris provided comparable feedback, indicating that the questionnaire had an appropriate balance of item types because it “had a good mix of multiple choice questions...and also (offered) the cadets an opportunity to provide written feedback.”

In contrast, both participants at each site suggested that the questionnaires were too long for the time allotted to complete them, and expressed concern regarding the validity of the data collected from the observation. The following quote provided by Chris is representative of feedback provided by all four participants regarding the excessive length of the questionnaire: “(The questionnaire) was a little bit long. I know that you had blocked about a half hour to complete it but many cadets weren’t able to finish in that amount of time.”

Regarding the observations, the four participants were concerned about the representativeness of what was observed. Ray and Ron both remarked that the observations were not completely representative of the activities offered at their unit. Further, Ray indicated the observations could be improved by having the evaluator “observe a mandatory training weekend and additional training nights” to augment the observations made on the four site visits that were conducted on regularly scheduled mandatory training evening. At the urban unit, both Charles and Chris noted the impact of the evaluator’s dual role as the training officer and evaluator on data collection. During the post-evaluation interview, Chris remarked “you (the evaluator) were always running around doing other things, so I wondered what exactly you were getting out of these site visits.” Charles added that he “was always trying to deal with staff shortages or do (his) job, and never really got the detail out of the observations that (he) was hoping for.”

Timeliness of the evaluation.

Both participants at each site commented on evaluation timeliness in two different ways. They all agreed that the evaluation was timely in the context of

programmatic changes that were occurring through the past three years within the overall Air Cadet Program. However, all four participants were concerned that the evaluation was conducted too late in the training year and had it been conducted earlier in the training year, the data collected would have been more representative of training offered at each of the units. At the rural unit, Ray focused on the national redevelopment of the cadet training program that had taken place, and indicated that “with all of the recent changes to the training program, I think this will give us a good idea of whether or not these changes are actually accepted by the cadets.” Ron provided similar feedback, suggesting that the evaluation was useful in assessing “how the cadets felt about the new changes” with regards to the newly mandated training program. The views of Charles and Chris were similar to those of Ray and Ron. Charles was cognizant of changes to the cadet program and indicated that the evaluation “came about at an appropriate time.” Additionally, Chris suggested focused on cadet perception of the new training program, remarking that “the program (was) in the midst of a number of big changes to make it more palatable and enjoyable for the cadets.”

Participants agreed that the evaluation was timely in the context of assessing the changes to the training program that had been made within the cadet organization across Canada. However, Charles, Chris, and Ron all suggested that the evaluation was conducted too late in the training year to be fully representative of the training conducted at their units during the year. At the rural unit, Ron suggested that the evaluation should be conducted at a point in the training year when more instruction was being carried out, rather than at the end

when many of the mandatory training periods were close to completion. He noted the limitations that resulted from the late timing of the evaluation within the training year, “it was hard to do any follow-up in order to make detailed changes based on the results.” Similarly, at the urban site, Charles and Chris both remarked that the evaluation should have occurred earlier in the training year, when the training plan was fully operational and cadet instruction was occurring more frequently. Charles commented “the training was winding down at the squadron, so the training we provided wasn’t the same as it would’ve been during the middle of the training year.” Clearly, the participants wanted a more continuous evaluation, with results presented during the year.

Contextual Factors

Two contextual factors emerged from the analysis of initial and post-evaluation interviews, and researcher reflections: ‘Organizational receptivity of evaluation and the role of the evaluator at each unit.

Organizational receptivity of evaluation.

Both research participants and the cadets at each of the two research sites appeared to be more receptive of the evaluation of their respective units. However, other staff members at the rural unit appeared to be more receptive to the evaluation when compared to other staff members at the urban unit. At the rural unit, research participants demonstrated their receptivity to the evaluation through the roles they played during the evaluation process and their interest in the results. During the post-evaluation interviews, both participants were asked to reflect on their roles during the evaluation process. Ray remarked that both he and

Ron were active in the development of the evaluation instruments, commenting that they “helped develop the survey and suggest questions to add and take out.” During data collection, Ron suggested that he and Ray took a less active role suggesting that they played a support role by providing the evaluator access to the site, and any other resources he needed to allow him to properly execute the evaluation. Ray and Ron’s receptiveness of the evaluation was also evident when discussing their unit evaluation report. A reflection made by the researcher after a conversation with Ray captured his interest in reading the evaluation report: “What’s equally exciting is the reaction of (Ray) when I told (him) that I was just about done with (his) unit reports – (his) reply text message had a number of ☺’s and “!!!”s.” Additionally, during the post-evaluation interview, Ron remarked on his experience reading the report: “It was kind of like Christmas...I was excited to see what the report had to say about our squadron and what kinds of things we could change as a result.”

At the urban unit, Charles and Chris’ receptiveness of the evaluation manifested itself in their discussion of the importance of this evaluation for their unit. Charles noted the organizational changes that had been made over the past three years and how the impact of these changes had not yet been properly investigated: “regardless of what was going on in (his) academic life, this (evaluation) is something (he) would have done at the unit anyways...because it needed to be done.” Chris also addressed the evolving nature of the cadet program and spoke to the importance of the evaluation in investigating whether or not the cadets perceived the organizational changes as positive.

Cadets at both units were also receptive of the evaluation. According to an entry in the researcher's reflections made after his first site visit to the rural unit, a group of cadets approached the evaluator, as they were interested as to how the evaluation results would enhance their training program. After a brief discussion in which the evaluator discussed how the unit staff might use the cadets' feedback to make changes to the unit training program, the group of cadets appeared satisfied with the evaluator's response. As he walked away from the group, the evaluator overheard one of the cadets remark, "Maybe we'll get to do more flying now; that will be so cool!"

Cadets at the urban unit were also interested in how the results of the evaluation could shape their training program. In an excerpt from the researcher's reflections from the evening the project was introduced, he recounts a discussion with a cadet who was interested in sharing his feedback. As the cadet's discussion with the evaluator continued, the cadet indicated that he was excited that his feedback might have an impact on the unit's training program: "I have a lot of good ideas for things we can try next year. I think it's awesome that I get the chance to put them in writing."

Beyond the research participants at the rural unit, other staff members appeared to be more receptive of the evaluation than their counterparts at the urban unit. Upon conclusion of the third site visit at the rural unit, the staff gathered informally at a local lounge. At this meeting, they engaged the evaluator in a conversation of the data he had obtained up to that point in the evaluation and began to discuss changes that they could make to the unit based on some of the

feedback they were receiving, such as including more “ceremonial parts of the program into (their) mandatory training nights.”

Beyond the research participants at the urban unit, other staff members did not appear to be receptive of the evaluation. During the post-evaluation interviews, Charles and Chris both expressed concern that many of the unit staff members were not interested in participating in the evaluation. Chris remarked about the difficulty in getting buy-in from other staff members to participate in the evaluation process because many “were not interested in addressing challenges faced by the unit.” Supporting Chris’ comments, reflections made by the researcher illustrate that specifically; the commanding officer (CO) at the time the evaluation was being did not appear to support it. Further, the researcher’s reflections noted that though written consent to participate in the evaluation was obtained and the CO gave verbal confirmation that he was willing to participate in the evaluation, he never completed. After numerous follow-up attempts the CO withdrew his active participation from the evaluation.

Additionally, Chris and Charles noted resistance to the evaluation from other staff members at the unit. Primarily, there was concern that staff would be resistant to incorporating the results. When asked to discuss this concern, Charles noted:

Staff buy-in...outside of the training department it appears that the staff don’t really get involved with the cadet training...and I think even with these results in black and white it will still be difficult to get everybody on the same page.

Further, Chris referred to results in the evaluation report that indicated some staff members were not satisfied with how other officers interacted with the cadets saying the “staff may not be excited about implementing some of the feedback that (they) get from (the) evaluation”.

The evaluator’s role.

The role the evaluator played during the evaluation differed between the two units: At the rural unit, the evaluator’s sole role was to conduct the evaluation, while at the urban unit he conducted the evaluation secondary to his role as the training officer at the time. In fact, Ray and Ron indicated that they saw the evaluator’s role at their unit as being able to provide them with an outside perspective. Ray indicated that access to the evaluator and having him “around to explain the differences in unit functioning from a parade night was very informative.” Supporting Ray, Ron commented that “there’s never any harm in looking at things from another perspective...even if you don’t agree with it.”

Conversely, from the evaluator’s perspective, his primary role as the training officer at the time of the evaluation often acted as a barrier to completing the observations during the evaluation. In a reflection following the second urban site visit, the evaluator noted the difficulties with the dual role of evaluator and training officer, saying he “didn’t get to do (his) observations, because (his) commanding officer tasked him to take care of (his) training responsibilities” during the course of a training night at his unit. During the third scheduled site visit at the urban unit, he reflected on the impact of absent staff on limiting his available time for data collection efforts:

Absenteeism among the staff has forced (him) to take on roles that (he) wouldn't normally be doing and collecting any kind of meaningful data from (his) unit was next to impossible, because (he) couldn't give (the evaluation) the time it deserv(ed).

Chapter 6

Discussion

The following research question was addressed in the present study: *To what extent does a concurrent account of evaluation and contextual factors in practice align with the model of evaluation use developed from Peck and Gorzalski's (2009) model?* First, a summary of the study is provided, followed by a discussion of findings related to first Peck and Gorzalski's model of evaluation use and then methods used in the current study. Following this, the limitations and conclusions of the current study are presented. The final two sections outline the implications for evaluation practice and research, along with recommendations for future research.

Study Summary

The impetus for conducting the current research and evaluation arose from the researcher's long-standing involvement with the Air Cadet Program as well as a review of the literature regarding evaluation use. As such, his motivation for conducting the evaluation of the Air Cadet program was two-fold (a) to improve the quality of the program for current and future cadets and (b) to address persistent challenges that he had previously experienced. To that end, the researcher had a vested interest in program improvement and in examining the factors that promoted evaluation use. The purpose of the present study was to examine the factors that affected the use of the results and findings from the program evaluation and to apply this to the model developed by Peck and Gorzalski (2009).

The large body of literature in which the factors affecting evaluation use were examined provided the foundation for the current research (i.e., Alkin, 1985; Alkin & Taut, 2003; Cousins & Leithwood, 1986; Johnson et al., 2006; Peck & Gorzalski, 2009). However, the literature is limited by a lack of research presenting models of the factors that affect evaluation use (i.e., Alkin & Taut, 2003; Peck & Gorzalski, 2009). Peck and Gorzalski's model of evaluation use was selected to be the focus of the current research because it was the only model of the factors affecting evaluation use that was created based on empirical research findings.

A concurrent, phenomenological approach was used to address the research question in the current study and was appropriate for the following three reasons:

1. Data could be collected concurrent to the evaluation, thus limiting the effects of participant recall bias (Ayhan & Isiksal, 2004).
2. Meaning could be generated from the perspectives of the research participants in a natural setting, permitting the unique contexts of the program evaluation to be attended to (Bogdan & Biklen, 2007; Brandon & Singh, 2009; King & Pechman, 1984).
3. Findings could emerge inductively from the data, allowing participant perceptions to be captured and interpreted without a specific theoretical lens.

There were three sources of data for the current study including two primary data sources and one source of secondary data. The primary data sources

were interviews of the four participants and researcher reflections made during site visits and following the participant interviews. The secondary data sources were the evaluation findings reports distributed at each site.

Three findings emerged from the analysis of these data sources:

1. Use of evaluation findings and processes occurred at both sites.

Specifically, conceptual use was more prevalent at the rural site compared to the urban site, while process use was equally prevalent at both the urban and rural sites.

2. Organizational receptivity of evaluation and the role of the evaluator emerged as two important contextual factors affecting evaluation use.
3. Evaluation factors appeared to specifically affect process use at both sites, while contextual factors appeared to affect all types of evaluation use.

Discussion of Findings related to Peck and Gorzalski's Model

The current study of evaluation use provides some evidence aligning with and extending from Peck and Gorzalski's (2009) model. Aligning with Peck and Gorzalski's model, conceptual use was found to be most the most prevalent type of use overall. In terms of extending Peck and Gorzalski's work, two specific contextual factors emerged from findings in the current study. The first was the evaluator's role and second was the influence of an organization's receptivity of program evaluation on evaluation use. A third finding extending Peck and Gorzalski's model was the influence of organizational receptivity to the evaluation factors that promoted process use.

Findings aligning with Peck and Gorzalski's model.

As indicated above, conceptual use was the most common type at both sites. Participants' change in thinking about their program was evident, when, at the end of the evaluation, they provided detailed suggestions for programmatic change based on findings published in the evaluation report. This result aligns with findings from Peck and Gorzalski's (2009) research that suggests conceptual use is the most common type of evaluation use. What could not be assessed in the current study was the extent of implementation of evaluation findings as the study was conducted concurrent with the program evaluation at both sites and no follow-up was employed. The evaluation use literature attributes the prevalence of conceptual use to the relative ease of a change in thinking compared to tangible programmatic changes associated with instrumental use (Taut & Alkin, 2003). Given the literature supporting the prevalence of conceptual use (i.e., Alkin, 1985; Burr; Peck & Gorzalski, 2009), the numerous examples of conceptual use in the current study were not surprising.

Findings extending Peck and Gorzalski's model.

The findings related to the role of the evaluator, the organizational receptivity of program evaluation, and the participants' openness towards program evaluation and its effect on process use extended the work of Peck and Gorzalski (2009). Their model refers generally to human, evaluation, and contextual factors; however, the current research provided specific examples of each of these factors. Further, where Peck and Gorzalski's model referred to how the factors affected use, generally, the current research could specifically ascribe

evaluation and contextual factors to promoting process use. The role of the evaluator was different at each evaluation site and appears to have affected use. Whereby the dual role (i.e., training officer and evaluator) at the urban site may have decreased the likelihood of use of the findings, the singular role at the rural site increased likelihood of use. Whereas competing responsibilities at the urban site appeared to affect the time the evaluator could dedicate to implementing the program evaluation and thinking about the evaluation results, at the rural site he was able to dedicate all of his time and thinking to the program evaluation. The issue of dual roles was not addressed in Peck and Gorzalski's (2009) because external evaluators, who only had to focus on their evaluator role, conducted all the evaluations considered in their study. However, the researcher noted that, in his singular role as an evaluator at the rural site, he was able to mitigate challenges that included collecting data, minimizing bias, and negotiating stakeholder buy in ways similar to those reported in the literature related to conducting an external evaluation (Innes & McCabe, 2007). At the same time, the evaluator's prior involvement with the Air Cadet Program afforded him a comprehensive understanding of the program, which is a noted benefit when conducting an internal evaluation (Skolits, Morrow, & Burr, 2009). The findings in the current study related to the role of the evaluator suggest that an evaluator is more likely to promote use if his or her role is primary, and he or she possesses a detailed understanding of the program.

Differing organizational views of program evaluation also appeared to affect the use of evaluation findings. At the rural site, all staff members, including

research participants, appeared to be receptive of the evaluation. A discussion of the interim findings was initiated by the rural participants, suggesting that they were more open to using the evaluation findings than their urban counterparts. This openness, in turn, facilitated conceptual use of evaluation findings and is supported by literature suggesting that organizations that are receptive to evaluation are more likely to use the results (Vanlandingham, 2011). Conversely, at the urban unit, only the research participants were receptive of the evaluation, while other staff members appeared reluctant to participate or assist the evaluator during the process. As such, the findings at this site were less likely to be considered and used to make decisions about program change and renewal. This finding supports the work of Wilkerson (2010) who suggested that minimal staff buy-in acted as a barrier to evaluation use. Findings related to organizational receptiveness of program evaluation suggest that facilitating and promoting stakeholder buy in is a critical factor in promoting the use of evaluation findings (Azzam, 2010; Poth & Shulha, 2008).

Whereas organizational openness affected conceptual use of evaluation findings, the research participants' receptiveness of program evaluation appeared to specifically affect process use. The participants' reflections about and questioning of the evaluation process appeared to facilitate evaluative thinking in that the participants all provided suggestions to address challenges with the evaluation instruments, relevance, and timing. This finding extends Peck and Gorzalski's (2009) work as it provides an empirical account of their position that contextual factors affect evaluation factors. While Peck and Gorzalski's model

posits a link between these factors, they did not provide evidence to support this relationship. Further, findings in the current research appear to contradict results reported elsewhere that suggest that challenges the finding that contextual factors act as a barrier of evaluation use (Boeber, 2004; Taut & Alkin, 2003). The findings of the present study suggest that since the research participants were all supportive of the evaluation and interested in how the results could shape their respective sites' training plans, they were likely to be more reflective of the evaluation process. Further research is required to investigate actual changes made to the training plans as a result of the evaluation.

Discussion of Key Findings related to Methods

A concurrent, qualitative approach was employed to investigate the factors that affect the use of evaluation findings and captured evidence of process use and conceptual use of evaluation findings as they occurred during the evaluation process. In the context of the current study, the researcher was able to investigate changes in participant thinking as it occurred during the conduct of the program evaluation. Specifically, the initial and post evaluation interviews were able to illustrate changes in participants' thinking with respect to evaluation processes; while the researcher reflections captured the actions of other staff members at each site. A concurrent, qualitative method is well suited to examine process use since process use typically occurs while a program evaluation is ongoing (Patton, 2007). This approach has been identified as effective way to investigate participants' perceptions and perspectives of the program evaluation as the perceptions and perspectives emerged, something not afforded by the use of

quantitative or retrospective methods (Ayhan & Isiksal, 2004; Bogdan & Biklen, 2007).

Limitations of the Current Study

Two study limitations require that the results be interpreted with caution. First, there is the possibility of researcher bias associated with the dual roles of the researcher, and second there were limitations associated with the methods used. The roles played by the researcher limited the results of the current research in two ways. First, human factors could not be addressed because of the role the researcher played within the Air Cadet Program prior to the evaluation. Second, his dual role as research participant and as evaluator introduced an increased risk for bias in the results of the research study, particularly for the urban site. Although the research identified his biases at the outset of the research, the potential still exists for them to affect the urban site results of the study.

Methodological limitations should also be considered when interpreting the results of the current study. First, there were only two sites at which the program evaluation was conducted and there were only two research participants at each site. Other research studies on the factors affecting use typically employ larger samples (e.g., Burr; Peck & Gorzalski, 2009). Second, the types of use that occurred as a result of the program evaluation were not fully investigated in the current research: symbolic use was not examined in the current study, as the researcher did not ask participants if they had pre-meditated plans to use the evaluation to support their perspectives on elements of the training program. Third, as this study was conducted concurrently to the evaluation with no follow-

up, instrumental use could not be investigated. This is because there was not sufficient time between the dissemination of the evaluation reports to each site and the execution of the post-evaluation interviews to examine whether or not actual changes had been made to the program at each site. Finally, linking evaluation and contextual factors to specific types of use did not occur. This limitation existed because the participants were not asked any direct questions regarding what factors specifically caused them to use evaluation findings or processes.

Conclusions

Taking into account the limitations in the current study, the following four conclusions can be drawn from the findings:

- 1) Contextual factors appear to be the underlying factors that influence the use of evaluation findings and processes.
- 2) Use of evaluation findings is less likely to occur when the evaluator plays a dual role because his time cannot be focused solely on the evaluation.
- 3) Participants' receptiveness of evaluation appeared to affect process use, as participants all provided detailed feedback for improving the evaluation methods, questions, and relevance for future iterations.
- 4) Concurrent methods are effective for examining use of evaluation processes.

Implications for Practice

Two implications to guide evaluators in practice emerged from the findings of the current study of the factors affecting the use of the findings and processes from a program evaluation. First, the use of the findings facilitated if the primary role of the program evaluator is to evaluate the program and inhibited if it is a secondary role that competes with primary responsibilities. Second, attention to the program evaluation context is critical in promoting use.

In the present study, the program evaluator's primary role at the rural site was to evaluate their program. In this sole role, the evaluator was able to favourably affect use. In contrast, the program evaluator's role as evaluator was secondary at the urban site. Here he had a dual role, with his role as the evaluator being secondary to his role as the training officer at the time of the evaluation. This dual role appeared to negatively affect use at the urban site. This finding suggests that to more effectively promote use, conducting the program evaluations should be the evaluator's primary role to allow the evaluator to properly focus on all aspects of planning and conducting a program evaluation and ensuring the use of the evaluation findings.

Second, the context in which a program evaluation is conducted is a key predictor as to the extent to which the evaluation findings will be used (Alkin & Taut, 2003; Cousins & Shulha, 1997; Peck & Gorzalski, 2009). This appears to underscore the importance of the evaluator attending to the needs of the stakeholders and encouraging early and continuous buy-in to the evaluation

process, as supported by the utility standard related to the attention to stakeholders put forward in the *Program Evaluation Standards* (Yarbrough et al., 2010).

Future Directions for Evaluation Use Research

The findings of the current study suggest the need for future research in the area evaluation use. As has been discussed throughout, program evaluations are heavily driven by the context in which they are conducted. To accurately capture the evaluation context, the use of qualitative methods is appropriate (Brandon & Singh, 2009). Additionally, conducting research concurrent to the implementation of a program evaluation appears to avoid difficulties due to memory decay of evaluation participants in retrospective studies of evaluation use (Ayhan & Isiksal, 2004). From the current research and its limitations, four areas for further study include:

- 1) Similar study in which the researcher, evaluator, and research participant roles are held by different people, to minimize bias in the results.
- 2) Study asking participants directly which factors affected which types of evaluation use and how they did so to more effectively link the types of use to the factors that affect them.
- 3) Use of a larger number of research sites to mitigate the challenges of a small sample size.
- 4) Follow-up studies to see if planned changes are translated into actual changes.

- 5) Study integrating both concurrent and retrospective methods to gain a more comprehensive understanding of all types of evaluation use, including instrumental use of evaluation findings.

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Appendix A: Letter of Information and Consent Form

Dear Staff Member:

As a staff member of [urban unit], you are invited to participate in a program evaluation of your unit that will be used to ensure a high quality program continues to be offered to your cadets.

In support of a Masters' Thesis, the principal Investigator, Andrew Lejeune, with the support of the Area Cadet Officer, is undertaking a program evaluation of [Urban unit] and [Rural unit]. The purpose of this evaluation is to determine the experiences, perceptions and attitudes regarding cadet training of cadets and staff at each of the two units. Further, I will be investigating factors that facilitate the use of evaluation processes and results.

As part of this evaluation, you are invited to complete a questionnaire and participate in an observation protocol, conducted by Captain Andrew Lejeune, that will document the training that takes place during your parade night. The questionnaire should take no longer than 30 minutes to complete, and the observation will not interfere with your parade night duties and responsibilities. You will be asked to complete a consent form allowing us to utilize your responses in support of the research portion of this project

Further, if you are the commanding officer or training officer, you will be asked to participate in two interviews, the first one to take place at a time convenient to you during my first two site visits and the second interview to take place during the June field training exercise. The purpose of these interviews is to discern your perceptions towards the evaluation and its potential utility. Each interview will take no longer than 60 minutes to complete and will be recorded using a digital audio recorder to ensure accurate analysis.

Upon the completion of the evaluation, a summary of results will be made available to your unit commanding officer.

Your participation in this evaluation is strictly voluntary; you may withdraw yourself, your comments, or your responses from the project at any time, without penalty, simply by notifying me. If this happens your data will be removed. Any information collected through the questionnaire, observation and interview will be kept confidential, and will be handled by myself and my supervisor in accordance with the University of Alberta Standards for the Protection of Human Research Participants. Only I and my thesis supervisor, Dr. Cheryl Poth, will have access to the data. Data will be collected confidentially and stored in a password protected and secured location for a duration not

exceeding 5 years. If you should have any concerns at any time about the project you are urged to contact me by phone at 780.991.3876 or email: alejeune@ualberta.ca. You may also contact my thesis supervisor at 780.492.1144 or email: cpoth@ualberta.ca.

“The plan for this study has been reviewed for its adherence to ethical guidelines and approved by the Faculties of Education, Extension, Augustana Research Ethics Board (EEA REB) at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Chair of the EEASJ REB at (780) 492-3751.”

Thank you in advance for your support in ensuring the continued offering of a quality Air Cadet Program.

Sincerely,

Andrew Lejeune
Masters Candidate
Center for Research in Applied Measurement and Evaluation
Department of Educational Psychology
Faculty of Education, University of Alberta

PARTICIPANT CONSENT FORM

In support of a Masters' Thesis, the principal Investigator, Andrew Lejeune, with the support of the Area Cadet Officer is undertaking a program evaluation of [2 Air cadet Squadrons]. The purpose of this research is as follows:

- To determine the experiences, perceptions and attitudes regarding cadet training of cadets and staff at each of the two units to aid in ensuring your cadets can take part in the best training experience possible.
- To investigate factors that facilitate the use of evaluation processes and results.

As a member of the [Urban] squadron staff, you are invited to participate in the following activities:

- Completing a questionnaire which will take approximately 30 minutes to complete
- Being observed during scheduled Thursday night training during the months of April and May. This will not require any additional time beyond attending cadets on a Thursday evening.
- Training and Commanding officers will be invited to participate in interviews at the beginning and end of the evaluation process, with each interview lasting one hour in length.

All information collected will be coded to protect your anonymity. No personal records, comments or responses of yours will be attributed to you when reporting results. Any identifying indicators will be removed and data will be presented in aggregated form. The questionnaires and consent forms will be maintained securely by the principal investigator for a period of five (5) years, at which point they will be destroyed.

The Principal Investigator, Andrew Lejeune, will perform the tasks of data collection, data analysis, and reporting. At no time during data collection or analysis will anyone but the principal investigator, and his supervisor, Dr. Cheryl Poth, have access to the raw data.

Data collected during evaluation tasks may be used for research and publication purposes. Participation in the surveys is completely voluntary. Interviews with the training officer and commanding officer will be recorded using a digital audio recorder.

Contact Information

Please feel free to contact the following:

Andrew Lejeune (780) 991-3876 andrew.lejeune@ualberta.ca or
Cheryl Poth, PhD (780) 492-1144 cpoth@ualberta.ca

The plan for this study has been reviewed for its adherence to ethical guidelines and approved by the Faculties of Education, Extension, Augustana, Campus Saint-Jean Research Ethics Board (EEASJ REB) at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Chair of the EEASJ REB at (780) 492-2261.

Participants are free to withdraw from evaluation activities - without adverse consequences - at any point during the study. There are no known risks or personal benefits from participation in this study.

I acknowledge that the research procedures for the **[Air Cadet] Program Evaluation** have been explained to me, and that any questions I have asked have been answered to my satisfaction. In addition, I know that I may contact the person designated on this form if I have further questions either now or in the future. I have been assured that personal records relating to this study will be kept anonymous. I understand the conditions under which I am free to withdraw from this study, and that I will not be asked to provide a reason.

Participant

(Print Name)	(Signature)
(Date)	

Researcher

(Print Name)	(Signature)
(Date)	

Appendix B: Initial Interview Protocol

This Interview will adhere to the following protocol:

- a) Locating the interview in a place where the conversation can be private and of our commitment to take all measures possible to ensure confidentiality
- b) Adhering to the maximum of one hour in length
- c) Principal investigator will confirm that participants have already signed consent forms and confirm the goals and objectives of the project:
 - a. their right to refuse to answer any questions
 - b. participating or not participating will in no way affect their standing within the organization
 - c. that the interview will be digitally recorded with their permission
- d) Thank them for their participation and commitment.

Interview with key stakeholders from each unit. The Primary focus of this interview is to determine what effect, if any the evaluation has on key stakeholders and what factors contributed to that effect.

1. What are your prior experiences with regards to program evaluation?
2. Please describe some of the benefits you considered when agreeing to participate in this evaluation
3. Please describe some of the consequences you considered when agreeing to participate in this evaluation
4. What role do you expect to play during the evaluation process?
5. Do the evaluation questions align with what you'd like to learn about your unit? Why/Why not
 - a. What training activities are being offered at your unit?
 - b. What training activities are cadets and staff interested and involved in?
 - c. What influences cadets and staff to join and remain in the program?
 - d. What perceived effect does the reorganization have on the air cadet program?
 - e. How do cadets perceive their training experience (i.e., instructor ratings, interest level in cadet activities)?
 - f. What effect do factors such as communication, instruction, and training department organization have on training plan implementation?
6. Do you feel that I have adequately explained what the evaluation process will entail? Please explain.
7. Please define, in your own words, the definition of "program evaluation"

8. What is your unit's prior experience with regards to program evaluation?

Appendix C: Post-evaluation Interview Protocol

This Interview will adhere to the following protocol:

- a) Locating the interview in a place where the conversation can be private and of our commitment to take all measures possible to ensure confidentiality
- b) Adhering to the maximum of one hour in length
- c) Principal investigator will confirm that participants have already signed consent forms and confirm the goals and objectives of the project:
 - a. their right to refuse to answer any questions
 - b. participating or not participating will in no way affect their standing within the organization
 - c. that the interview will be digitally recorded with their permission
- d) Thank them for their participation and commitment.

Interview with key stakeholders from each unit. The Primary focus of this interview is to determine what effect, if any the evaluation has on key stakeholders and what factors contributed to that effect.

1. What are your general impressions of this evaluation process?
2. What was the most useful aspect of this evaluation? Least useful?
3. Would you have changed anything with regards to the evaluation process (i.e., timing, evaluation questions)? Please explain
4. Did you feel that the questionnaire and observations were appropriate tools in conducting this evaluation? Why/why not
5. How involved did you feel in the evaluation process?
6. What were your initial thoughts after reading your unit's report?
7. Did the report meet your information needs?
8. Did the evaluation support previously held knowledge about your unit?
Please explain
 - a. Did you learn anything new about your unit?
9. Do you feel that this report was received in time to incorporate results into next year's training plan?
10. How will you use the results of this evaluation
 - a. Do you foresee any barriers in using the results of this evaluation (i.e., resource availability, cadet/staff buy-in)? Please explain.
11. How do you think this evaluation will impact the cadets and staff at your unit?
 - a. Do you intend to share the results with your staff and/or cadets?
 - b. Have there been any unintended impacts?
12. As a result of your experiences with this evaluation, would you participate in future evaluation of your unit? Why/why not?

13. Did anything change regarding your thinking towards your unit during this evaluation process? Please explain
14. As a result of this evaluation would you be interested in learning more about developing and implementing evaluations? Please explain.
15. Do you have any final comments on the evaluation report or the evaluation process?

Appendix D: Excerpt of Researcher Reflections

April 18: Conducted my first interview today, with Ray. I get the feeling that I may not get as much information as I thought out of this, but one thing that I think will be a persistent theme is that a necessary precursor to evaluation use is evaluation buy-in. I'm already seeing that there is a tremendous amount of buy-in of this process from Ray, and as such I think this means he will be more likely to use the process to improve his unit going forward. I'm doing my best to make sure the information regarding this project is as wide-spread as possible – I've sent to our parents' committee communication person and Ray has agreed to post the info on his website – we'll see what happens.

April 18 Interview notes:

Location: conducted on MSN Messenger, Interviewer was at his desk at home, Ray at his desk at his cadet office

Time: Interview commenced just before 3:00 PM, ended just before 4:00 PM

Tone: The interview started off with some friendly banter, Ray asked if he needed to give professional sounding answers, I assured him that colloquial English would be sufficient

The Interview: Before the interview began, I provided the ground rules, explained his rights as the interviewer, Ray said he was happy for the opportunity to get the interview questions ahead of time as it allowed him time to properly prepare his answers. He also expressed his interest in using MSN Messenger, rather than the phone – as it gave him a few extra moments to write his responses. The interview itself went smoothly, there was a nice flow, and Ray had no issues answering any of the questions, providing very candid feedback. Upon concluding, I thanked him for his participation, relating to him that if he wanted a copy of the interview summary, he only had to ask. We then moved on to a discussion regarding our upcoming summer survival exercise

Interviewer comments: If I had not already had such a strong rapport with the interviewee, I would not have considered MSN an option, but for what we lost in face-to-face interaction, it was gained in previous contact, and our previous working relationship

May 21: 170 pages worth of eval reports, and still at least another 10 in discussion, this was quite the process, but some interesting stuff has come out, and I'm excited to really get into the reports and use data collected to shape a training plan that is tailored to what the cadets ask for. I think it was a good idea to write up individual summaries for each training level - while going through each, I could note marked differences in where each level focused their energies (level 1s with flying, level 2s with survival and marksmanship, level 3s with biathlon, level 4s with flying and senior cadets with leadership and professionalism) these differences would have never emerged in a meaningful way if I only wrote up an overall report. What's equally exciting is the reaction of the Ray when I told him that I was just about done with his unit reports – his reply text message had a number of 😊's and "!!!"'s. In fact the conversation went like this:

Me: You're in for an interesting read... Lots of interesting stuff in your unit's eval report

Ray: YES !!!!!!!!!!! When can I see it?

Me: Should be ready by Monday... I also wrote up quick summaries for each training level based on survey responses

Ray: Wow I like it 😊😊😊

Long story short, next year's training will be way better because I will be able to tailor to the needs of the cadets.