ENHANCING ELEMENTARY SCHOOL PREVENTION PROGRAM IMPLEMENTATION THROUGH INFLUENTIAL CONTEXTUAL FACTORS

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ENHANCING ELEMENTARY SCHOOL PREVENTION PROGRAM IMPLEMENTATION THROUGH INFLUENTIAL CONTEXTUAL FACTORS

By

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DISSERTATION
Submitted to the Faculty of Social Work in partial fulfilment of the requirements for Doctor of Philosophy in Social Work
Wilfrid Laurier University

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ABSTRACT

A current gap in the literature exists with regard to formulating a holistic view of contextual factors involved in school-based prevention program implementation. The purpose of this grounded theory study is to further explore how multilevel ecological and cross-system factors influence prevention program implementation. This study builds on development of a theory to guide the practices for preventive program implementation with fidelity. The Integrated Program (IP) conceptual framework, initiated in an earlier paper (Schmidt Hanbidge, 2009) identified key program contextual and motivational factors that critically influence prevention program implementation. Taken from an ecological perspective, the IP framework incorporates multi-levels of systems from the individual, to organization, to the community contexts.

Twenty-four interviews were conducted in two stages with school program facilitators, school principals, and program administrators delivering a prevention program, STEAM (Skills & Tools for Emotion Awareness and Management) in elementary schools in southern Ontario, Canada. Theoretical sampling was utilized and data was analyzed and coded, aided by the program, QSR Nvivo. Grounded theory was the research methodology used in this study to refine the IP conceptual framework for implementation of school-based emotion regulation programs.

The study determined several contextual and motivational factors that facilitated program implementation, such as: open communication/support from key stakeholders, adequate program resources (including time and space), knowledgeable, experienced training and skilled supervision for program facilitators. The study identified how several contextual factors were considered to be barriers to the implementation process and could threaten the fidelity of the program.

The study adds to the prevention literature by identifying how the program facilitators progress through an evolutionary process as they become more experienced. They typically start out as program facilitators, thereafter becoming role models, then mentors, then finally experts.

This study identifies ways to integrate the specific contextual and motivational factors in the implementation process of the school-based prevention programs. The IP framework was refined, based on the study data, to recognize the effect of “differentiated” program delivery. During implementation, study participants identified and adapted the prevention program to “fit” the specific school environment which aided in the sustainability of their program.
ACKNOWLEDGEMENTS

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CHAPTER 1: INTRODUCTION

Background

In Canada, over 10% of children six to 15 years of age exhibit anti-social behaviours, such as anger and aggression (Offord & Bennett, 2002). The consequences of the increase in children’s mental health problems in Canada and the associated needs and costs of mental health services presents important issues that need to be addressed within the next decade (Health Canada, 2002; Offord, 1992). The National Longitudinal Survey of Children and Youth (NLSCY, 1996) identified that 484,631 Canadian children exhibit aggressive behaviour, which can seriously affect children's ability to perform well in school and relate to others. Lack of well-developed emotion regulation skills, which result in problem behaviour, have been shown to be a clear linkage to poor academic performance (Dearing, Kreider, Simpkins, & Weiss, 2006; Eisenberg, Guthrie, Fabes, et al., 1997b; Greenberg, Kusche, Cook & Quamma, 1995; Gumora & Arsenio, 2002; McClelland, Morrison, & Holmes, 2000; Van Velsor & Orozco, 2007; Wentzel & Wigfield, 1998) and poor social functioning (Eisenberg & Fabes, 1992; Hubbard & Coie, 1994; Izard, Fine, Schultz, Mostow & Ackerman, 2001; Margolin, 2005). Children without the skills and competencies to resolve conflicts or solve problems are at increased risk of victimization (Asawa, Hansen, & Flood, 2008).

Although behavioural and pharmacological treatments for children's behavioural challenges have advanced (Clarkin, Pilkonis, & Magruder, 1996; Crites-Cristoph & Siqueland, 1996; O'Brien, 1996; Schuckit, 1996; Thase & Kupfer, 1996), providing effective preventive interventions prior to onset of these behavioural challenges is the
obvious choice for mental health professionals (Mrazek & Haggerty, 1994; Reinke, Stormont, Rohini Puri, & Goel, 2011). Educators, social workers and researchers have been exploring ways in which to collaborate to deliver school-based preventive interventions that might enhance emotion regulation skills and reduce behaviours that are causing problems for children. Delivering interventions within school settings may reach those children who would otherwise not receive mental health support (Dwyer, 2004; Meyer & Farrell, 1998; Reddy, Newman, De Thomas & Chun, 2009; Van Velsor & Orozco, 2007) and schools provide excellent settings to address student’s academic needs, their mental health needs and the connection between the two (Greenwood, Kratochwill, & Clements, 2008; Reinke, Stormont, Rohini Puri, & Goel, 2011). However, the implementation of such integrated, comprehensive, sustainable programs remains an ongoing challenge within schools (Greenberg, Domitrovich & Bumbarger, 2001; Haeseler, 2011; Mishna, 2007). There are prevailing difficulties associated with access to material resources and maintaining the support of school administrators to sustain school improvement initiatives. Other factors identified as presenting challenges to successful implementation of these initiatives include scheduling conflicts, finding suitable space, childcare, distance, socio-cultural stigma, and parents’ perceptions of the social and professional status of educators and of family education trainers (Gross, Julion, & Fogg, 2001; Mishna, 2007).

Numerous factors must be considered for the implementation of school-based prevention programs. According to Fixsen, Naoom, Blase, Friedman, and Wallace (2005) the process of implementation is defined as:
A specified set of activities designed to put into practice an activity or program of known dimensions. According to this definition, implementation processes are purposeful and are described in sufficient detail such that independent observers can detect the presence and strength of the “specific set of activities” related to implementation. (p.5)

The quality of the implementation process is of critical importance to the success of the outcome (e.g. school change). Positive effects can only occur when a certain level of implementation is attained (Cook, Murphy & Hunt, 2000; Dane & Schneider, 1998; Durlak & DuPre, 2008). Desirable program outcomes are only achieved when an effective program is implemented well (Fixsen Blase, Timbers, & Wolf, 2001; Leschied & Cunningham, 2002) however, not all effective programs are implemented well (Fixsen & Blase, 1993; Fixsen et al., 2001). Research or demonstration projects often receive support from various levels that may monitor the fidelity of implementation. However, less than ideal conditions typically occur outside of research projects. Therefore, the programs delivered in local communities may be less effective. It is critical that community based prevention initiatives not be neglected. Thoughtful planning and support in the design and delivery of a program help ensure that a program can be successfully implemented, which can increase the likelihood that student and school communities will experience positive outcomes.

Surprisingly, studies providing information on program implementation have been very limited; for example, Durlak (1997) found that a small percentage (4%) of over 1,200 published prevention studies provided relevant implementation data, whereas in another study of school-based interventions, only 14.9% of interventions systematically
measured and reported on levels of program integrity (Gresham, Gansle, Noell, & Cohen, 1993). By studying the fidelity of implementation, it helps to understand why an innovation has succeeded or failed.

Weissberg and Greenberg (1998) have defined key factors that influence the process of implementation, such as the provision of technical support, user-friendly manuals, the level of program complexity, and the environment of participant characteristics (teachers, principals, school). It appears that the prevention literature has a conceptual model of implementation at this time. More prevention efforts have recently monitored implementation quality, especially in the substance abuse field, and have shown that implementation quality can affect outcomes (Gottfredson, Gottfredson, & Hybl, 1993; Hansen, Nangele, & Meyer, 1989; Pentz et al., 1990; Rohrbach, Graham, & Hansen, 1993). Recent efforts in this area have led to the development of theory-driven evaluations (Chen, 1990, 1998) and a framework recently proposed by Wandersman et al. (2008) offers guidance to assist in effectively providing prevention programming for the local community level.

However, at this time, the field of school-based prevention still lacks comprehensive models that clarify the relationship between implementation factors and processes that contribute to the potential of a program's effectiveness (Greenberg, Domitrovich, Graczyk, & Zins, 2005). Elias, Zins, Gracyzk, & Weissberg (2003) suggest that researchers have not adequately explored the processes that lead to effective implementation of school-based programming. Further, there is limited literature on school-wide prevention programs and, specifically, a lack of focus on process, or fidelity
of implementation of school-wide programs (Mytton, DiGuiseppi, Gough, Taylor, & Logan, 2002; Wilson & Lipsey, 2007).

Previous research has provided some information on individual factors that play a role in prevention program implementation success however, a gap in the literature exists when it comes to formulating a holistic view of overall motivating and contextual factors. Viewing program implementation through a holistic, systems ecological, or life model perspective (Bronfenbrenner, 1979, 2005; Gitterman & Germain, 1976, 2008) is a step toward understanding the complexities involved in delivery of a prevention program in a community-based setting. Bronfenbrenner (1979) suggests how four levels of ecological system components aid in (Microsystem, Mesosystem, Exosystem, and Macrosystem) understanding how processes are influenced while Gitterman and Germain’s (1976) Life Model refers to the importance of viewing person and their environment as a unitary relationship and understanding how they influence one another simultaneously. Applying an ecological approach provides a person-in-environment framework which looks at the person while incorporating an understanding of the experiences of the individual and their relationship to the contexts of their environment, including their families, cultures, communities and policies and the processes that transpire between the systems. Ecologically school-based prevention programs offer a strong potential to promote a wide variety of programs to students in a comprehensive way (Booth et al., 2001; King et al., 1995; Orleans, 2000; and Powell, Kreuter, Stephens, Marti & Heinemann, 1991). Viewing delivery of a prevention program within the school system through an ecological perspective incorporates the "interdependence of the circumstances and activities of
schooling with the ways in which people respond cognitively and affectively in the total setting" (Sirotnik, 1984, p. 3). The multiple layers of relationships and resources in schools are considered as the various contextual factors from an ecological perspective as Goodlad (1975, p. 206) notes, "ecological thinking embraces the whole: the impact of pupils on teachers as well as the reverse; the impact of teachers on teachers; the use of resources; the relationship among all these."

In a previous paper (Schmidt Hanbidge, 2009) I outlined the critical factors, including multilevel ecological, individual, school, community and cross-system factors that influence successful implementation of a school-wide mental health emotion regulation program (named the Integrated Program) (Altshuld et al., 1999; Shediac-Rizkallah & Bone, 1998; Wandersman, 2003). This model forms the foundation of the Integrated Program (IP) framework and a visual diagram of the Integrated Program is shown on page 49 in this paper. Taken from an ecological perspective, the framework incorporates multi-levels of systems from the individual, to organization, to community contexts. Two of the keys to the Integrated Program through the school are the ongoing collaboration of community mental health partners and the home-based parent support services. The layers of individual, parent, school, community, and cross-system involvement are all necessary aspects of the implementation process. In the Integrated Program model diagram (see Figure 3, page 49), the inner box identifies key program factors influencing implementation that include: training/supervision, stakeholder support, resources and technical support. The key contextual factors influencing implementation are identified in the outer box of the Figure 3. diagram and include;
cultural, political, economic, and current state of knowledge (evidence-based theory/practice). Both the key program factors and the contextual factors are impacted through the next layer in the model that addresses the quality of the linkages through the home, school, community, and organization environments.

Literature addressing prevention programming is typically found in the psychology literature and is not garnered from social work literature. Publications in social work literature are extremely limited in the area of school-based prevention and this study aims to contribute to the social work literature. In addition, there is limited literature about interdisciplinary teams and the implications for social workers working in a cohesive team, especially in school-based prevention efforts.

**Purpose and Objectives**

In a previous paper (Schmidt Hanbidge, 2009), I generated a conceptual framework, named the Integrated Program (IP) about implementation of school-based emotion regulation programs grounded in the current theoretical and empirical literature. This conceptual IP framework is described in detail in chapter 2. The purpose of this grounded theory study is to further develop, understand, and explain multilevel ecological, individual, school, community and cross-system factors that influence implementation and to refine the Integrated Program. This research study aims to modify or expand on the Integrated Program framework to develop a theory to guide practice for preventive emotion regulation program implementation in elementary schools. Interviews with teacher facilitators, school principals, and program administrators who delivered a preventive emotion regulation program will generate a deeper understanding of the
motivating and contextual factors that shape the program implementation processes. Exploration of the economic, cultural, political, and practice knowledge related to practice contexts of teacher facilitators' implementation of an emotion regulation program in elementary schools provide the experiential evidence to draw on to modify the Integrated Program framework.

This study aims to address the gap in the social work literature about school-based implementation of prevention initiatives and one of the objectives of the paper is to identify the key factors required for successful leadership within schools by teacher facilitators, specifically in the field of prevention. The analysis will assist school board officials and administrators to identify and interpret both the concerns and extent of program implementation by teacher facilitators.

**Research Questions**

Two key research questions have been posed to aid in the exploration of the data and to refine the Integrated Program:

1. **How do training/supervision, stakeholder support, resources and technical support factors enhance implementing an emotion regulation prevention program with fidelity?**

2. **How do cultural, political, economic, and practice-based contextual and motivating factors influence teacher facilitators and program administrators in elementary schools in implementing an emotion regulation prevention program with fidelity?**

**Situating Myself**

My personal interest in exploring the topic of prevention program implementation
by schools and teachers has developed over the last 15 years after graduate education and training in social work. During my professional social work experience in the field of community mental health, one component of my career involved child protection, criminal justice, and clinical counselling. This gave me opportunities to develop, deliver, facilitate, and evaluate various mental health groups both in the community as well as in elementary and high schools. I was struck by the inconsistencies and variations in the implementation and delivery of programs, and how this inconsistency impacted the overall success of a program.

Working with at-risk children, youth, and their families led to my involvement as one of the authors of the evidence-based community (Temper Taming) and school-based (Skills & Tools for Emotion Awareness and Management ["STEAM"]) emotion regulation programs developed at a community mental health agency. Since the program's inception, several thousand at-risk elementary school children have participated, and over 60 schools in the Waterloo Region have implemented the program (See pages 70 - 82 for a detailed description of the STEAM program). My leadership role with these programs also spurred me to pursue a doctoral level education to enable me to learn more about the program development, implementation, and evaluation process, and to positively impact children's mental health programming through an intersection of academic and applied community work.

In order to explore this topic from a unique standpoint, I utilized the strategy of reflecting on my experiences as a former program administrator of the STEAM prevention program. One of my dissertation committee members, Dr. Anne Westhues,
interviewed me as one component of this study. I’ve reflexively explored my experiences along with other participants to better understand the culture of the implementation of a prevention program.

Definition of Terms

In order to have a common understanding of the terms covered in this paper, conceptual definitions of key terms used throughout this document have been included.

Implementation fidelity

Quality implementation, which is often referred to as fidelity, is crucial and necessary to achieve the intended results of a program (Durlak & DuPre, 2008; Fixsen, Naom, Blase, Friedman, & Wallace, 2005). Studying the fidelity of implementation helps to understand why an innovation has succeeded or failed. Whereas measures of fidelity of implementation have not been universally accepted across studies, there are five dimensions that have received research attention, and are the ones that I have chosen to focus on in this paper (Dane & Schneider, 1998; Dusenbury, Brannigan, Falco, et al., 2003). Dane and Schneider (1998) described these five dimensions as:

1. Adherence, which is the extent the innovation corresponds to the original innovation,
2. Dosage, which is the exposure of participants (e.g. program attendance) to program components and the quantity of that exposure
3. Quality of the delivery of the innovation (e.g. are components delivered clearly and correctly?)
4. Participant responsiveness refers to the degree of interest the participants demonstrate in the program (e.g. attentiveness)

5. Program differentiation refers to the uniqueness of the innovation and the ability to distinguish a program's theory and practices (e.g. component analysis to determine essential program aspects)

If the fidelity of implementation is lacking or not properly put in place, implementation failure can occur (Durlak & DuPre, 2008; Rosenbaum, 1986; Wandersman et al., 2005a) for a variety of reasons, including a lack of resources, inexperienced personnel, or insufficient training (Dalton, Elias, & Wandersman, 2007).

Program, innovation and intervention

These terms will be used interchangeably to reference a preventive practice "being used for the first time by members of an organization, whether or not other organizations have used it previously" (Nord & Tucker, 1987, p. 6). According to Klein and Sorra (1996, p. 1058), it is useful to view innovation use "as a continuum, ranging from avoidance of the innovation (non-use) to meager and unenthusiastic use (compliant use) to skilled, enthusiastic, and consistent use (committed use)."

Preventive programs

These programs take place in a variety of settings and target a number of skills. This study will focus on preventive programs disseminated in schools. The traditional terminology of primary, secondary and tertiary prevention (Caplan, 1964) has been replaced by the Institute of Medicine (Institute of Medicine [IOM], 1994) terms universal, selective and indicated.
As used in this paper, "universal" means that school-based programs are administered to all children in one classroom or all grades of specific schools without screening children to determine risk for mental health problems or specific learning challenges (IOM, 1994).

"Selective" programs target specific groups of children who are at significantly higher-than-average risk, or children "at risk" for health and behaviour problems due to individual, family, school, peer, or other environmental factors but who have not yet developed disorders, symptoms, or problems. These programs would be school-based, but not school-wide.

"Indicated" programs focus on those children who are experiencing difficulties. Universal and selective programs may include health promotion goals focused on reducing the initiation of problem behaviour (Gordon, 1983, 1987; IOM, 1994). Therefore, at some schools, some initiatives may be school-wide with the intent of having an impact on all students; others may be limited to a classroom, although others may target a specific group of students. Thus, prevention efforts can encompass broad, multi-faceted approaches or be discreet strategies (Adelman & Taylor, 2000).

School-based

The definition of school-based prevention programs is based on work of noted authors of evidence-based school prevention programs (e.g. Beard & Sugai, 2004; Hoagwood & Erwin, 1997; McConaughy, Kay, & Fitzgerald, 1998) and is summarized by the following: in school prevention programs that target children in school who are at risk of developing emotional disturbances. The prevention initiative is delivered on the
school property but may have originated elsewhere. School settings come in various forms, from large multi-storey urban centers to one-room rural schoolhouses.

Teacher Facilitator

The teacher facilitator in this study is one of the three co-facilitators providing group leadership in emotion management groups in the STEAM program. A STEAM program description can be found in chapter 2 on pages 70 - 82. Included in the teacher facilitators' role is the co-leading of program activities, dissemination and collection of information letters, teacher and parental consent forms, and to function in the key liaison role between parents and schools and the community mental health centre. Teacher facilitators frequently advocate on students' behalf. They are employed by the local school boards in positions of Educational Assistant (EA), Child and Youth Worker (CYW), or Special Education Teacher.

The other two program co-facilitators are the social worker facilitator and the intern facilitator. The social worker is the team leader of the three facilitators and delivers the majority of the program curriculum. The social worker is employed by the local mental health organization and has clinical experience working with the population of the STEAM program. The intern facilitator is a university or college student recruited for a placement practicum from a social work, psychology or a social services program. The intern role is supportive in nature and primary responsibilities include setting up of the room, sharing information with teachers, attending group sessions, and facilitating some children's and parent's activities in the group.
Program Administrator

The program administrator is a registered social worker (R.S.W) with clinical and managerial experience who is the individual responsible for planning, implementing, and evaluating the (STEAM) prevention program and is employed by the community mental health agency. The role of the administrator encompasses leadership and managerial functions related to the actual orchestration of tasks and structuring systems to carry out the organization's mission. These include fundraising, public relations, monitoring program evaluation, supervision and training of program and teacher facilitators, and holding the key liaison role between the mental health agency and the school boards.

Motivating Factors

Lindner (1998) operationally defined motivation as the inner force that drives individuals to accomplish personal and organizational goals. Simply, it is the reason for an action and one that gives purpose and direction to behaviour. There are two main kinds of motivation: intrinsic and extrinsic. Intrinsic motivation is internal. It occurs when people are compelled to do something out of pleasure, importance, or desire. Extrinsic motivation occurs when external factors compel the person to do something. In this study, the researcher explored what the motivating factors are for the teacher facilitators and the program administrators in implementing the prevention initiative.

Contextual

Contextual factors are characteristics of the environment that are related to the effectiveness of collaborative efforts in prevention programs. Environment, here, includes the physical and the structural settings of the community, and the resources available to
the program in the community, such as training, supervision, technical support, and stakeholder support. The social context impacts the program as well, such as the political atmosphere and motivation, economic funding (level and stability), cultural context (literacy, language, roles), the economic context (financing, funding [stability and level of funding]), and the evidence base of knowledge that is available to the community and program. These factors were explored in this study through the interviews with teacher facilitators and program administrators to generate a deeper understanding of the implementation processes.

**Emotion Regulation**

This term is sometimes used interchangeably in the literature with related constructs like coping, defenses, mood regulation or affect regulation. Since there is no general agreement on the definition of emotion regulation, this paper focuses on two complementary definitions: those being from Thompson (1994) and Cole and Cole (1996). Thompson's (1994) definition emphasizes the processes involved: "Emotion regulation consists of the extrinsic and intrinsic processes responsible for monitoring, evaluating and modifying emotional reactions, especially their intensive and temporal features, to accomplish one's goals." (pp. 27-28). Cole and Cole (1996) focus on the outcomes of emotion regulation: "emotion regulation might be defined as the ability to respond to the ongoing demands of experience with the range of emotions in a manner that is socially tolerable and sufficiently flexible to permit spontaneous reactions as well as the ability to delay spontaneous reactions as needed" (p. 76).
Relevance of Current Study

My thesis study explores the successes and challenges that teacher facilitators and program administrators experience when supporting the advancement of the STEAM program to higher levels of fidelity. I analyzed the interview data twice: the first time to deepen my understanding of the motivating factors that impact aspects of training, supervision, stakeholder support, resources and technical support that are likely to enhance fidelity. The second wave of the analysis deepened my understanding of how contextual factors—economic, political, cultural, and practice knowledge contexts—enhance fidelity. Although the significance of the results was intended primarily to contribute to the literature on implementation, a secondary aim is to promote change in the implementation of school-based prevention programs.

This research intends to provide schools with a useful tool to evaluate their current environment, and assess how these will affect prevention program implementation in their community. Whereas this research into the various factors affecting successful prevention programming implementation has provided a great deal of information, there is a gap when it comes to integrating these factors into a holistic model.

The specificity of identifying critical motivating and contextual factors and the best possible combination of these factors remains a challenge for researchers, schools, and community agencies who are seeking to create the maximum benefit for successful implementation of preventive programming. It is important for researchers to integrate these factors into an ecological approach which is the focus of the current research.
CHAPTER 2: REVIEW OF THE LITERATURE

Implementation Research

In the first section of this chapter I will summarize the historical prevention implementation literature including bridges and barriers to school-based program implementation. In the next section, source-based and user-base models will be reviewed. Following this, the Integrated Program framework will be introduced, links to the literature will be listed, and some local challenges will be explored and discussed in relation to the Integrated Program using Wandersman’s ISF framework (2008) as an example. Finally, I will provide a descriptive overview of the case example used in this study, the school-based STEAM program.

The topic of implementation studies has been explored in the education and evaluation arenas for the past 30 years. To develop a better understanding of the implementation process and the factors that influence successful implementation, a comprehensive theory that incorporates multiple perspectives can be useful (Mihalic, 2001). The majority of intervention studies for school-based prevention programs published in the 1980s and 1990s were conducted without information on the implementation process. One notable exception was a study by Domitrovich and Greenberg (2000), which examined 34 studies that measured specific features related to program integrity in successful programs (i.e. fidelity and adherence, dosage, participant responsiveness, and program differentiation). They found considerable variability in the type and number of implementation factors measured. Over 76% of the effective programs measured program integrity in some way. Of the 34 studies that were examined, only 32% utilized implementation factors as a source of information to relate...
to program outcome analysis. None of the 34 studies used more than two implementation dimensions in the same study.

As early as the 1970s, researchers stressed the importance of studying whether an innovation was implemented as intended (Charters & Jones, 1974). In the 1980s, the study of implementation declined for a number of reasons according to Gersten, Baker and Lloyd (2000). Most important is that implementation research can be very costly, especially when observing classroom innovations. In addition, Gersten and colleagues (2000) found that many studies produced the same conclusion: that high quality teaching such as academic engagement, quality of teacher feedback or the ongoing monitoring of student learning superseded any unique features that an intervention might have (Gersten et al., 2000).

In the 1990's interest in implementation resurfaced among researchers but implementation measures were still typically not included in studies, perhaps because cost-effective and psychometrically sound measures had not been developed (Gersten et al., 2000). Overall, people interested in delivering school-based programs have struggled to find a conceptual framework that would be useful in guiding implementation practice.

More recently, considerable gains have been made in the study of implementation. Durlak (1998), Elias, Zins, Gracyzk, and Weissberg (2003), Gottfredson, Fink, Skroban, and Gottfredson (1997), Weissberg and Greenberg (1998) have identified key factors that influence the process of successful implementation, such as the provision of technical support, user-friendly manuals, the level of program complexity, and the environment of participant characteristics (teachers, principals, school).

More prevention efforts have recently monitored implementation quality,
especially in the substance abuse field, and have shown that implementation quality can affect outcomes (Gottfredson, Gottfredson, & Hybl, 1993; Hansen, Nangele, & Meyer, 1989; Pentz et al., 1990; Rohrbach, Graham, & Hansen, 1993). Recent efforts in this area have led to the development of theory-driven evaluations (Chen, 1990, 1998) and a framework recently proposed by Wandersman et al. (2008) offers guidance to assist in effectively providing science-based prevention programming for the local community level. A review of source and user-based models follows.

**Source-Based and User-Based Models**

Source-based models that are viewed from the perspective of the researcher include two examples: Roger's (1995) diffusion of innovation theory; and Backer and colleagues' (1995) technology transfer model. These offer a way of understanding how ideas are put into practice. These models follow an innovation from concept or original idea to dissemination and often follow a linear process with a product that is transferred from the source (researcher) to the user (community). This involves an innovation that is a new product or service that an organization, developer or inventor has created (e.g. research, development, testing, manufacturing or packaging, dissemination Amabile, 1988; Kanter, 1988; Klein & Sorra, 1996; Tornatzky & Fleischer, 1990) for the market and will be referred to as the research-to-practice model (hereafter referred to as "RTP"). The RTP model is the dominant science paradigm developed at the National Institute of Health (Wandersman, 2003) and these models have been used in a number of areas, including education, psychology and health. The five box model described in the Institute of Medicine Report on Reducing Risks for Mental Disorders (Mrazek & Haggerty, 1994) is one example of the RTP model. The attempt to transfer new technology and bring
research to practice is based on the technology transfer model or the sharing of best practices, further elaborated by Price, Friedland, Choi, and Caplan (1998), whereby the practitioner or organization would adjust to the innovation. These models are viewed through the transfer of knowledge from scientists to practitioners and effects are calculated by statistical analysis. One of the lesser emphasized components in the diffusion of innovation theory is fidelity of implementation.

User-based models are also grounded in a linear perspective, but are community-based and begin with the world of practice and will be referred to as the community-centred model (referred to as "CC"). There are various authors that have described variations of the CC model (e.g. Macauley & Nutting 2006; Miller & Shinn 2005; Mohrman, Tennaksi, & Mohrman, 2003; Schorr, 2003; Wandersman, 2003; Wells, Miranda, Bruce, Alegria, & Wallerstein, 2004). The users in the community become aware of a need or a change that may be possible and create or incorporate this into the innovation. Community-centred models "begin with the community and ask what is needed in terms of scientific information and capacity-building to produce effective interventions" (Wandersman, 2003, p. 230). Within the user-based framework, an innovation is a technology or a practice "being used for the first time by members of an organization, whether or not other organizations have used it previously" (Nord & Tucker, 1987, p. 6). CC models are focused on developing programs to meet local needs (Klein & Sorra, 1996), where in contrast, RTP models are focused on the source of the innovation. In addition, CC models aim to improve an existing innovation, whereas, RTP is typically the introduction of a new program. The consumer or practitioner perspective is the key to the improvement of a practice. The community is an active participant in
implementing the innovation where the focus is on the community, not the innovation.

These divergent perspectives argue for two extremes when it is time to problem-solve. The RTP model argues that practitioners should adapt to accommodate the innovation, whereas the CC model supports adaptation of the model to better fit the community needs or to find a model that better suits the community. My research study is focused on a user-based children's prevention program model, STEAM that has been developed in a local community in southern Ontario. While the RTP and CC models diverge on many issues, the common ground is the recognition that individual, organizational and community factors impact implementation of an innovation (Flaspohler, Duffy, Wandersman, Stillman, & Maras, 2008).

Although the articles reviewed here provide important contributions to the implementation literature, integrative models that capture and clarify the multifaceted, multilevel phenomenon of innovation implementation are largely not available. The above models approach from a specific viewpoint and single perspective (e.g. source or end user). A broader multi perspectival framework is still necessary to be useful for various innovations and end users.

**Interactive Systems Framework (ISF)**

In response to the limitations of these models and incorporating a multi-perspectival framework, Wandersman Duffy, Flaspohler, Noonan, Lubell, Stillman, et al. (2008), a collaborative group from the Centers for Disease Control and Prevention and a research team at the University of South Carolina and Miami University, USA designed a framework that attempted to address the gaps in the models and could synthesize information from the existing models and build on the consensus of the two models to
help in understanding systems of prevention. The Interactive Systems Framework for Dissemination and Implementation (referred to as “ISF”) was designed to focus on the infrastructure and systems that necessitate the dissemination and implementation to occur while accommodating multiple perspectives (e.g. funders, researchers, practitioners, and technical assistance providers).

This framework is a heuristic to help aid understanding and discussion bi-directionally in the movement (dissemination and implementation) of knowledge between researcher and practitioner stakeholders in the prevention research and practice field. The ISF consists of three sub-systems: the Prevention Synthesis and Translation (Research) System, the Prevention Support System, and the Prevention Delivery System. Each sub-system contributes to the understanding of how research can be translated into action while taking into consideration the specific community’s needs and values for delivery of programs. This framework also contributes to the effective adoption and implementation of evidence-based practices. The model includes the activities and functions that are carried out by people in various roles. A common language helps connect those who develop knowledge (research community) with those who deliver prevention services (practitioners). From a research perspective, this model helps to identify key questions to ponder while assisting in the identification of challenges and barriers to successfully bridge the science-practice gap. From the practice perspective, there are a number of activities that must be considered for implementation, and this framework assists in identification of those activities to enable effective use of prevention resources.

The ISF (Fig.1) was designed to help us understand the roles and relationships of
those who develop the knowledge, those who act as bridges or supports between the researcher and practitioner, and those associated with using the knowledge in practice settings.

Figure 1 - Interactive Systems Framework (ISF) (Wandersman et al., 2008)

One key sub-system, the Prevention Synthesis and Translation (Research) System is focused on distilling information about innovations or programs and the preparation required for implementation of innovations in user-friendly formats in the field. There is also an intermediary segment of the ISF, known as the Prevention Support System whose function is to support the work of those who are actually implementing the innovation (e.g. training) and delivering the innovation in the community. The third subsystem,
being the Prevention Delivery System of the framework involves the actual delivery of programs within the practice settings, such as the organizational, community, provincial or national levels. For optimal dissemination of innovations, these three sub-systems should successfully work together in a bi-directional manner (see Fig. 1).

**Strengths and Further Action**

The ISF encourages systemic thinking by offering a structure that can assist in organizing the work of prevention. It is a way to provide a connection with the research community and those in the practice community.

Also, it needs to be considered whether there is room for variations in the ISF that could be considered, not only for prevention programs, but perhaps also policies, principles, and processes. The ISF seems to be perfectly suited for implementation of prevention programming (e.g. social support, skills training) but could it be useful for a greater change, such as policy, for advocacy, or environmental change? For example, there is an effort to decrease the obesity level in children by creating new opportunities in schools through increased activity levels and healthier food choices in cafeteria and vending machines. Can the ISF be applied to this new content or does a different or alternative framework need to be considered? The final consideration for the ISF is whether it can provide useful guidance for those who work within and across the three subsystems.

At this time, there is still not a comprehensive multi perspectival model that clarifies the relationship between implementation factors and program outcomes that contribute to the potential of a program's effectiveness (Greenberg, Domitrovich,
Graczyk, & Zins, 2005). The Integrated Program model that I developed in a previous paper (Schmidt Hanbidge, 2009) and the findings from this study aim to contribute to the school-based prevention program implementation literature.

Factors that Influence Implementation of Prevention Programs for Children

In this section, I will review the research literature on implementation of prevention programs with a view to identifying the factors that have been labeled as influencing the quality of implementation of prevention programs for children. The next section is organized with these factors according to the ecological categories of individual, organizational, community and cross-system factors (Flaspohler et al., 2008; Wandersman et al., 2008).

My general focus is on the meta-analysis review of factors in the implementation process of school-based interventions on children's aggressive behaviour (Wilson, Lipsey & Derzon, 2003). Although this study reviewed various areas of treatment, my specific focus will be on the factors identified as influencing implementation outcomes and the reasons why several authors believed that an ecological perspective was necessary for understanding successful implementation (Altschuld, Kumar, Smith, & Goodway, 1999; Riley, Taylor & Elliot, 2001; Shediac-Rizkallah & Bone, 1998; Wandersman, 2003). This review also aided in my development of the Integrated Program framework described later in this chapter.

The studies I was particularly interested in and reviewed for this literature search were comprised of those included in the Durlak and DuPre (2008) meta-analysis that address the category of "mental health," treatment including the studies by: Aber, Jones,
Brown, Chaudry, and Samples (1998); Cook, Habib, Phillips, Settersten, Shagle, and Degirmencioglu (1999); Cook, Murphy, and Hunt (2000); Elias, Gara, Ubriaco, Rothbaum, Clabby, and Schuyler (1986); Forgatch, Patterson, and DeGarmo (2005); Gottfredson, Gottfredson, and Hybl (1993); Harachi, Abbott, Catalano, Haggerty, and Fleming (1999); Ialongo, Werthamer, Kellam, Brown, Wang, and Lin (1999); Kam, Greenberg, and Walls (2003); Moskowitz, Schaps, and Malvin (1982); Sterling-Turner, Watson and Moore (2002); Stevens, Van Oost, and De Bourdeaudhuij (2001); and Telzrow, McNamara, and Hollinger (2000).

In addition, I am also including studies that address "academic & mental health" treatment from the Durlak and DuPre meta-analysis, including the studies by: Abbott, O'Donnell, Hawkins, Hill, Kosterman, and Catalano(1998); August, Bloomquist, Lee, Realmuto, and Hektner (2006); August, Egan, Realmuto, and Hektner (2003a); August, Lee, Bloomquist, Realmuto, and Hektner (2003b); Battistisch, Schaps, Watson, Solomon, and Lewis (2000); Battistisch, Schaps, and Wilson (2004); Kerr, Kent, and Lam (1985); and Solomon, Battistich, Watson, Schaps, and Lewis (2000).

As mentioned earlier, the various aspects to implementation that I have chosen to focus on for this review include fidelity aspects identified by Dane and Schneider (1998): 1) dosage (how much of the quantity of the original program has been delivered?); 2) fidelity (correspondence of original program to one delivered); 3) quality (clear and correct delivery of program elements); 4) program reach (rates of participation and involvement of participants); and 5) program differentiation (theory and practices that can be distinguished from other programs). See Table 1: Aspects to Successful Implementation, beginning on page 244 for the factors that influence the successful
implementation programs for children.

The notable findings from the Durlak and DuPre (2008) meta-analysis review of the articles regarding children's mental health prevention programs include a number of common interacting factors that influence implementation. To understand successful implementation according to the literature review I completed, it is helpful to view the implementation process through multilevel ecological levels for a comprehensive view, a perspective shared by others (Altshul et al., 1999; Shediac-Rizkallah & Bone, 1998; and Wandersman, 2003). The multi-levels of individual, parent, school, community, and cross-system involvement are important ecological dimensions to view the various aspects to the implementation process. These levels of involvement viewed together with the various aspects to implementation (Dane & Schneider, 1998) correlate to positive outcomes in prevention, and offer a useful lens to view the implementation process as outlined in Table 2, beginning on page 253.

I was particularly interested in examining the literature to determine whether studies had examined the relationship between the ecological levels and the various aspects to implementation. Authors have assessed some of the factors in their studies, but authors have not reviewed all of the factors as there seem to be too many to study at one time. There also seems to be some overlap between the factors, but I have tried to clarify the factors by entering the information under only a single heading in Table 1. Some scientists have found an interaction between some of the factors; for example, Kam et al. (2003) found a significant effect for school principal support and the fidelity of teacher implementation on the program, Promoting Alternative THinking Strategies (PATHS) which is a school-based universal program designed to reduce aggression and behavior
problems among elementary school-aged children. When both factors were high, students improved significantly while low support was related to negative changes by students. Similar interactional findings occurred in another study where high levels of teacher implementation of the prevention program, Seattle Social Development Project (SSDP), favourably influenced student's involvement in class, bonding to school, and level of academic achievement (Abbott et al., 1998).

A number of the studies that were reviewed in this meta-analysis (Durlak & DuPre, 2008) on the dosage or fidelity of implementation, but few measured various aspects of the implementation process together. This may be because of the time consuming nature of collecting the data and the resources, both human and financial, to collect and analyze the data. It also appears that both quality of implementation and program reach are two areas that would benefit from more study as few studies addressed these one or both concepts.

Stevens and Van Oost (2001) determined in their Flemish anti-bullying study that it was not whether the program had been implemented, but it was the quality of the implementation that accounted for the difference in program outcomes. They suggested that thorough consultation among all participants was a key component of the implementation process. Ialongo et al. (1999) found that lack of support and guidance from teachers led to a low level of implementation of the prevention program, and researchers found "resistance" from teachers was tied to the lack of support teachers received.

Other studies chose to focus on program theory and in this regard, Forgatch et al. (2005) and August et al. (2003) addressed the issue of fidelity versus adaptation. The
authors determined that program components should hold true to the program theory and goals; however, their study findings demonstrated that local community programs needed to adapt the timing of the intervention, the program approach to match family characteristics, and then try to balance program adherence to program consumer norms and needs. Effective collaboration between program developers and community providers ensures that all philosophies, service priorities, as well as the operational system needs are recognized and addressed, which in turn makes exact replication of any prevention program challenging.

August et al. (2003) and August et al. (2006) found that parent attendance at a Family Support Program geared to the prevention of conduct problems had a significant effect on parent and student program outcomes. Failure to engage families at recommended levels (reduced dosage) led to diminished program effects (August et al., 2006), or families attended fewer sessions of the Family Support Program than recommended. Lengthy program exposure (4-6 years) influences positive outcomes for school academics as well as school climate according to the study by Cook, Habib, Philips et al. (1999), and increased exposure to the program related positively to decreased student aggression and more positive classroom environments. Surprisingly, these findings were contradicted by Moskowitz et al. (1982) in their study, and they found that program results were unrelated to the amount of exposure to a program.

Numerous studies that reviewed and measured the implementation process clearly reviewed fidelity versus fit in their overall review; however, not all aspects of the implementation process were addressed by studies. It would be useful to conduct studies that compare the influences of other variables, and in particular the effect of the overlap
between individual and school factors.

I advocate that research regarding fidelity of implementation continue to be applied in community settings as they vary considerably from controlled experimental research settings. The evidence base supporting the use of effective prevention efforts in different settings is increasing, but there still is limited knowledge about the effectiveness of mental health program innovations transported to community or school-based settings (Pollio & Macgowan, 2011). In their meta-analyses, Rones and Hoagwood (2000) recommended that evaluation efforts be conducted to expand knowledge about whether interventions that work in clinic settings could work in school treatment settings. Transportability and implementation studies would increase our knowledge about effective practice and could "separate strong… findings from background noise" (Rones & Hoagwood, p.224). Over 335 studies of program evaluation projects, conducted between 1985 and 1995, were reviewed by Rones and Hoagwood (2000), and they found that 130 of such studies had used both control groups and standardized measures. Of those studies, only 47 met the criteria to be included in the review which required that the studies have (i) use of randomized, quasi-experimental, or multiple baseline research design; (ii) inclusion of a control group; (iii) use of standardized outcome measures; and (iv) baseline and post intervention outcome assessment.

One of the key conclusions in the review was that effectiveness research of school-based studies is needed. Other authors also agree that transportability of treatment needs to be examined through a series of implementation studies to provide evidence about how to implement a program in different settings (Schoenwald, Henggeler, Brondino, & Rowland, 2000).
Factors that have yet to be studied include measurement of the influence of organizational settings; such as staff turnover, changes in school leadership, and the types and extent of training offered to those implementing new innovations. Engaging an entire school community to reflect and measure school-wide change of climate and collecting data would assist in helping to understand the variables important to fidelity of innovations.

**Identifying Implementation Factors for School-based Programs**

Numerous factors must be considered prior to implementation of an emotional and social learning program in a school community. The quality of the implementation process is of critical importance to the success of the outcome (e.g. school change). Positive effects can only occur when a certain level of implementation is attained. It is important to ensure that the proposed program activities are carried out as planned or adjusted with careful thought and planning. If some program activities are significantly delayed, overlooked, or not dealt with during the implementation phase of a program, the program may be less effective. Thoughtful planning ensures that a program can be successfully implemented, increasing the likelihood that student and school communities will experience positive outcomes. Program evaluations which fail to consider an assessment of the quality of implementation are considered to have a Type III error (Durlak, 1998). Typically, community-based interventions with various components and target audiences may be particularly susceptible to Type III errors because of the complexity of the program (Goodman, 2000).

Very few organizations or communities initiate new programs without
confronting some difficulties during the implementation phase. Having implementation experience with school-based prevention programs led Elliot, Kratochwill, and Roach (2003) to determine that a consensus of at least 80% of school staff must "buy-in" to the prevention innovation and must develop committed partnerships over a period of years, (not weeks or months) in order for positive change to occur.

The following discussion of the key issues highlights similarities between prevention programs in the implementation process and the challenges and obstacles such programs face. Reviewing the literature from several authors who conducted studies about the implementation of social and emotional learning programs in schools include: (Chen, 1998; Elias, Zins, Grazcyk & Weissberg, 2003; Gottfredson & Gottfredson, 2002; Kam et al., 2003; Peirson & Prilleltensky, 1994) helped to identify and emphasize the importance of various factors that influence the quality of implementation of school-based interventions. The following discussion of aspects of an effective implementation process is organized around seven key factors, which have been identified through the above literature as; (1) community ownership, (2) timing, (3) long-term view of change, (4) logistics of setting up sites, (5) human factors, (6) technical support, and (7) fidelity vs. fit. See Figure 2 on page 33 - Key factors influencing quality of implementation of school-based interventions.
Figure 2 - Key factors influencing quality of implementation of school-based interventions

Key Factors

Logistics of setting up sites

There are a number of structural organizational considerations to create and maintain change. Obvious resources must be considered such as personnel, planning meetings, and training sessions. The quality of implementation may depend on the quality, depth, and length of training opportunities (Gottfredson & Gottfredson, 2002). Quality of training may include such features as follow-up coaching/supervision with staff personnel and a higher level of standardization of the program materials. Ongoing
training is critical and needs to include the involvement of experts knowledgeable in the field (Elias, Zins, Grazcyk & Weissberg, 2003). Issues such as space limitations are often a challenge for new programs (Guerra & Williams, 2003) and often, there is insufficient foresight in planning for the needs of service providers and students alike. Some prevention groups have met in closets, libraries, or portables designated as storage rooms. As well, confidentiality is a central concern when working with students within a school setting. It is important to obtain a confidential and quiet meeting location.

As the number of program sites increase, the logistical issues are also increased because coordination within and across sites become paramount. This diffusion requires the processes (i.e. training, manuals) to be standardized to ensure the uniform quality of program implementation. Evidence suggests that written scripts (e.g. training and curriculum manuals) may enhance the quality of specific skills and the implementation of specific innovations (Felner et al., 2001; Fuchs & Fuchs, 1989; Ehrhardt, Barnett, Lentz, Stollar & Reifin, 1996; Mishna & Muskat, 2010). Curriculum manuals often provide scaffolding for the implementation process by providing structure and organization, and less deviation from the implementation plan. In each new site location, there is a strong need to conduct a pilot project and to build in a systemic evaluation plan in both the pilot test and actual program in order to enhance the evidence base of a program (Pierson & Prilleltensky, 1994).

In a recent study (Buchanan, Gueldner, Tran & Merrell, 2009), teachers were surveyed about implementing social and emotional learning (SEL) programs and teachers reported that they believed in the value of SEL programs and that learning these skills enhance student academic outcomes. Teachers would like to implement these programs
and were willing to have consultation support and recommended training to assist in the dissemination of social and emotional learning programs in schools.

**Human factors**

Staff turnover is common in many community trials, according to August et al. (2003), which can disrupt continuity of care and result in a host of negative effects for program participants. Recruitment of new staff and volunteers addresses the critically important issue of quality training for intervention staff.

Various key people influence the success of school-based programs, but Kam et al. (2003) noted that in schools where principals and teachers effectively supported interventions, program success was more likely. They found that both the consistent support and leadership of the school principal and teacher factors (years of experience, enthusiasm, and preparedness) were of central importance to the school-based implementation process (Elias, Zins, Grazcyk & Weissberg, 2003). Support and supervision of key people, such as trainers and principals gives organizational support through the provision of strategic direction to staff and feedback and encouragement to enhance staff superior performance (Gottfredson & Gottfredson, 2002).

**Technical support**

It is understood that the people in charge of the program should be properly trained and feel supported by administrators and peers, but it is recognized that this alone is not enough. Technical and substantive considerations must be taken into account when launching a preventive program. It is useful to include ongoing supervision and coaching, training tools, and provide a high level of technical assistance. Kam et al. (2003) and Moncher and Prinz (1991) suggest the provision of ongoing technical support, training,
and mentoring to principals and teachers dramatically affects the nature of implementation. Grazzyk et al. (2000) recommend that three to five days of pre-implementation training is necessary for successful program implementation. August et al. (2003) evaluated the implementation effectiveness of the Early Risers "Skills for Success." This is a multi-faceted prevention program aimed at children at risk of developing antisocial behaviour. They monitored fidelity protocols across all program intervention components. All intervention staff received standardized manuals, intensive training programs, and ongoing technical support through weekly supervision and monitoring. Standardized curriculum manuals are viewed as enhancing the likelihood of program fidelity and can ease program replication (Galinsky, Terzian, & Fraser, 2006). In addition, sites were monitored periodically through checks by fidelity technicians to ensure implementation.

Timing

The readiness of schools to implement an intervention is important to the success of program implementation (Elias, Zins, Grazcyk & Weissberg, 2003; Kam et al., 2003). By providing resources (fiscal and personnel), schools can demonstrate their commitment to change as well as their district or school board's goals supporting the innovation. Schools that operate autonomously, without board support, can experience varying degrees of prevention initiative implementation at school sites.

Long-term view of change

Without long-term planning, it is unlikely that the programs which are implemented will survive, especially in school settings where a program must be integrated with other program initiatives already ongoing in schools (Kam et al., 2003). It
has been determined that the more extensive the integration of programs into normal school operations are, the more enthusiastic a school will be to adopt new practices (Gottfredson & Gottfredson, 2002). Peirson and Prilleltensky (1994) assert that a long-term view of change is imperative if people are to persevere in their attempts to integrate change in a school setting. The process of change can be frustrating if school personnel or families expect immediate change. Open communication with all stakeholders enhances the clarity of goals being pursued and builds the network of support for the intervention.

Community/School Ownership

Community or school adoption of a program is enhanced by community and school ownership or "buy-in" to motivate and sustain local community and school participation. When the community or the school doesn't buy into a program, the community or school resistance to effective implementation of a program makes it difficult to build the infrastructure and organization necessary for proper participation. To generate community and school support, it is useful to invite collaboration in the development of prevention programs from leaders and stakeholders, which empowers the community or school with a voice in the design of science-based prevention programs that also fit into local community and school cultural needs. This may present challenges to the integrity of a program, but some adaptation may be necessary for a successful integration of an evidence-based program into a community or school. Further discussion about the tensions between fidelity of a program and community fit will be addressed on the next page. To take ownership, community and school members must come to view the program as their program, which reflects "their needs, their beliefs, [and] their ideas" (Peirson & Prilleltensky, 1994, p. 137). Community or school ownership occurs with a
number of key ingredients for successful collaboration, which includes shared decision-making, mutual respect, common goals, defined group core values, and effective communication. There is cognition that this develops over time and is a process where trust must be established, visions become shared, and stakeholders work together to solve difficult challenges. Even when these ingredients are in place, different organizational cultures can be at odds with the implementation in more complex innovations. Service priorities, operational system constraints of the host agency and partner institutions can make exact implementation a daunting task. Collaboration between individual sites and stakeholders is the part of the implementation process that ensures the flow of communication and feedback to further enhance community or school ownership of the program. Without community and school ownership of a program, there may be limited implementation of an initiative.

Another component of ownership and program effectiveness is the integration of the program content into the general classroom curriculum (Conduct Problems Prevention Group, 1999; Rones & Hoagwood, 2000). For services to be sustained beyond a research study, inclusiveness of the services into normal educational routine and part of general school programming is important for sustainability.

Fidelity vs. Fit

There are noted tensions and ongoing debate between fidelity (integrity) and adaptability (fit) proponents. Both are essential elements of prevention programs and are best addressed by a planned, organized, and systematic approach. In addition, there are competing aims between the tensions of fidelity and adaptability. One key element is to develop prevention interventions and implement them with fidelity, and the other is to
design prevention interventions that are responsive to local community cultures. If the intervention is not linked to local needs, limited community or school participation will likely occur. Similarly, a program designed with the local school ecology and appeal in mind, may encourage participation, but will not guarantee program effectiveness. Some program developers require community providers to enter into a license agreement that stipulates training, supervision and quality assurance requirements.

According to August et al. (2003), Weissberg and Greenberg (1998), adherence to intervention protocol is considered essential for successful program replication, and program efficacy may be compromised if changes are made (Boruch & Gomez, 1977); however, this must be balanced with flexible adaptation to reflect the local school ecology and its norms and needs (Blakely et al., 1987). Two basic forms of adaptation involve modifying program content and modifying the form of program delivery. Modification of content may be necessary in the location of delivery, or the characteristics of the delivery person (lay workers vs. health educators). Translation from one language to another is the most obvious form of program adaptation. Program adaptation is a pervasive practice within communities nationwide. Berman and McLaughlin (1976) support the premise of planning program adaptations to fit the local need and found that the most successful programs had made some adaptations in the implementation process.

Castro, Barrera and Martinez (2004) reported that over half of programs they reviewed made some form of adaptation; therefore, adaptation appears to be the rule rather than the exception. Some changes to a program can be considered positive adaptations such as adapting materials for local needs. Some adaptations are unavoidable,
such as in the classroom where teachers may implement programs as they see fit. Dosage level is a consideration when determining fidelity and balancing adaptability in program implementation. Strategies for enhancing fit through adaptation should be conducted with rigorous science-based evaluation and training. Greeenberg, Domitrovich et al. (2005) recommended that communities or schools use the program's theory to guide local changes in implementation if adaptations are required for successful implementation of a program. Highly controlled randomized trials of innovations are typically developed and evaluated under very different circumstances than the community or school settings where they will be implemented. Unless program changes are theoretically guided or systematically recorded, it is difficult to evaluate the innovation with the link to program theory.

One view of the fidelity/adaptation debate encourages program adaptation, as long as critical program components are delivered as planned (Bauman, Stein, & Ireys, 1991; Meyer, Miller, & Herman, 1993). The important feature of this approach is that the program implementers have to be able to distinguish between essential components and optional features.

Implementation quality should be monitored each cycle and year of program delivery and this review reinforces the need to invest time and resources for planning, technical assistance, and training of program staff prior to the start of the prevention program.

**Barriers to Implementation**

Characteristics that Armstrong and Armstrong (2004) identified in their publication as challenges to successful implementation of school-based prevention
programs include staffing issues, community issues (program's cultural relevance and integration within the community and communication between partners), and program issues (grant writing and fundraising).

As a school adopts a program, it is also important to determine how to assimilate a program within the broader school context. As part of the implementation process, consideration must be given to coordinating the preventive program with other school-based support systems including special education and mental health support providers. Together, these programs can create an integrated network of services to meet the varying needs of the school.

Contextual factors, such as implementer characteristics and behaviour are critical to consider during implementation and may influence the quality. Implementers may have unrealistic ideas about the dissemination process and the outcomes of an initiative. Teachers and staff may view the new innovation as just another task in their long "to-do" list and the new innovation may be seen as one more new fad they are expected to embrace. Quality materials, such as a program curriculum manual need to be developmentally appropriate and be appealing both to program leaders and to students.

Factors at the school level are also important to consider as they may present additional barriers to implementation process. High quality prevention programs are costly and time consuming to implement. If staff in the school have not committed to the implementation process, it can be difficult to achieve a successful outcome. If goals of the preventive initiative are not congruent with the school or board district, commitment to the program can be undermined.

This review of key factors and barriers acknowledges the importance of quality
implementation of prevention initiatives in schools. Clearly, a multitude of factors is responsible for successful implementation of a program. The important dimensions of successful implementation also affect the sustainability of an intervention following implementation.

**Review of the Literature related to the Implementation of School-Based Emotion Regulation Programs**

In the first section, I will describe the organization of this section and summarize the criteria used to include and exclude school-based emotion regulation evaluation reviews. The next section of the chapter will review the individual studies in a table format (see Table 1, page 244) and describe the program, measurement, program theory, content, and process evaluation of several emotion regulation programs. The review of the literature aids in the formation of the Integrated Program framework. The diagram on page 47 will link the concepts in the literature that are clearly linked to the Integrated Program framework. Thereafter, the Integrated Program (IP) framework will be described and will be followed by a discussion of the Integrated Program as viewed through the lens of Wandersman’s Integrated System Framework (ISF). A diagram highlighting the literature linked to the Integrated Program can be found on page 47. The remaining part of this chapter will focus on a description of the experiential case study utilized in this paper, STEAM the elementary school-based program (pages 70-82).

The emotion regulation literature review is comprised of a number of journal articles. The programs reviewed incorporated emotion regulation constructs into universal, selective or indicated school-based approaches with children between the ages
of six and fourteen. Their evaluations used a strong research design (experimental or quasi-experimental with viable comparison groups), an acceptable standard of statistical proof, and provided adequate methodological detail to allow for an assessment of the study's soundness, and produced evidence of significant effects on children's behavioural outcomes. Components of the published literature helped to clarify the important components in the Integrated Program framework.

Dane and Schneider (1998) and Domitrovich and Greenberg (2000) implementation meta-analyses have reviewed various interventions, whereas more recent reviews have considered the influence of school settings on innovation designs and dissemination (Elias, Zins, Gracyzk, & Weissberg, 2003; Fraser et al., 2005; Gottfredson, Fink, Skroban & Gottfredson, 1997; Greenberg, Domitrovich, Gracyzk, Zins, 2001; Kamps et al., 2000).

The analysis framework of program and evaluation criteria produced some diverse school-based programs for review with a focus on emotion management, some of which may be described as programs with the goals of enhancing anger management skills, conflict management skills, social problem solving skills, social competency, increasing emotional self-awareness, emotional control, and self-esteem.

Inclusion criteria: In order to compare the available data for review on school-based emotion regulation studies, certain criteria were considered for inclusion in this review on programs with goals of enhancing emotion regulation programming for elementary school age children. To be included in this review, programs had to meet the following criteria: 1) address one or more of the constructs listed above; 2) involve children between grades one and eight; 3) emotion regulation constructs were included in
the description of the article, and 4) involve a review of program implementation process.

Exclusion Criteria: A number of programs were not included for one of the following reasons: 1) no evaluation existed, 2) the "evaluation" contained no data beyond a narrative case study, or 3) despite efforts adequate evaluation information could not be retrieved.

The journal articles that qualified for this review included only school-based programs that addressed emotion regulation constructs and were selected from two meta-analyses by Dane and Schneider (1998) and Part-Higgerson, Perumean-Chaney, Bartolucci, Grimley, and Singh (2008). The articles were selected using the criteria outlined in the previous paragraph. In addition, an attempt was made to identify and retrieve a search on studies in the database of Scholars Portal with the search string "emotion regulation + prevention + school-based." A limited number of studies was compiled from the combination of the above identified searches: Conduct Problems Prevention Research Group (1999); Corboy and McDonald (2007); Dupper and Krishef (1993); Elias, Gara, Schuyler, Leslie, Branden-Muller, Sayette (1991); Fraser, Galinsky, Smokowski, Day, Terzian, Rose, and Guo (2005); Greenberg, Kusche, Cook, and Quamma (1995); Kamps, Kravits, Rauch, Kamps and Chung (2000); Kjobli and Sorlie (2008); Moskowitz, Schaps, and Malvin (1982); and Pepler, King, Craig, Byrd, Bream (1995). See Table 3: Emotion Regulation Prevention Program Review, beginning on page 253.

All studies reviewed some aspects of the implementation process, but not one of the studies addressed all methods of monitoring the implementation process. They chose various methods of evaluation to understand the implementation process, while a number
conducted individual interviews with parents, teachers or principals. All ten programs in the review trained the teachers in the program model and provided a program guide or curriculum manual. Ninety percent of the programs hired skilled staff to facilitate the school-based programs. Involvement of community stakeholders in the implementation or delivery of the programs only applied to sixty percent of the programs. Support from school leadership, such as principals, is a key factor for success of an innovation; eighty percent of programs discussed support from school leaders in the studies.

Claiborn, Kerr and Strong (1990) conducted an extensive review of school-based behaviour prevention programs and noticed that "despite the great variety of group counselling interventions being used in the schools, relatively few appear with any frequency in the professional literature. While some of these may be effective and widely applicable, none have been thoroughly researched" (1990; p.714). Kamps et al. (2000) determined that prevention program with adequate implementation and support from families and schools greatly enhance academic engagement of emotionally disturbed students or those with behavioural problems.

The occurrence of inappropriate student behaviours was impacted by classroom structure (Kamps et al., 2000), with lower aggression occurring in classrooms with high structure. Students were also more academically engaged within moderate and high structure classrooms with fewer teacher reprimands. Some children may require prevention interventions over a longer period of time rather than a few weeks during a school year with more intensive levels of intervention (Kamps et al., 2000). Potential for deviancy training (contagion effect) was found when children were put together in small groups for special services (e.g. Dishion, McCord, & Poulin, 1999). Deviancy training
may occur when youth peers reinforce each other when they are treated together in
groups for delinquent or aggressive talk or behavior, and as a result, problem behavior
increases (Dishion & Tipsord, 2011). The final finding was that student behaviour
improved at school, as well as in the home or the community. Behaviour improvement
increased when there was positive collaboration between schools, parents and teachers
(e.g. Epstein et al., 1998; Kay & Fitzgerald, 1997; Kamps et al., 2000).

**Integrated Program Conceptual Model for Implementation**

**of Emotion Regulation Programs**

In this section, I will summarize the framework generated from my review of the
implementation literature from a previous paper (Schmidt Hanbidge, 2009). This new
framework, named the Integrated Program, outlines the critical factors, including multi-
level ecological, individual, school, community and cross-system factors that influence
successful implementation of prevention and early identification programming. Taken
from an ecological perspective, the framework incorporates multi-levels of systems from
the individual, to organization, to community contexts. The various levels that comprise
the Integrated Program framework were developed following a review of the prevention
literature. Specific concepts in the literature were highlighted and these were further
developed and informed the ecological implementation framework for school-based
prevention programs. A summary in the form of a diagram (pages 47 - 48) lists the
various journal article authors, the concepts within the journal articles and demonstrates
how these concepts link to each of the areas within the Integrated Program framework.
### Diagram – Integrated Program Development demonstrated by the Literature Linkages

<table>
<thead>
<tr>
<th>Integrated Program (IP) development and links to the literature</th>
<th>Authors</th>
<th>Literature link</th>
<th>Integrated Program (IP) Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bronfenbrenner, 1979, 2005</td>
<td>Ecological Perspective</td>
<td>Microsystem, Mesosystem, Exosystem, and Macrosystem perspective</td>
</tr>
<tr>
<td></td>
<td>Sirotnik, 1984</td>
<td>Ecological perspective</td>
<td>Delivery of a prevention program within the school system -multiple layers of relationships and resources in schools are the various contextual factors</td>
</tr>
<tr>
<td></td>
<td>Goodlad, 1975</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flaspohler et al., 2008</td>
<td>Ecological categories</td>
<td>Individual, organizational, community and cross-system factors</td>
</tr>
<tr>
<td></td>
<td>Altschuld, Kumar, Smith, &amp; Goodway, 1999; Greenberg, Domitrovich, Gracyzk &amp; Zins, 2005;</td>
<td>School-based contextual factors</td>
<td>Factors embedded in the context of a school</td>
</tr>
<tr>
<td></td>
<td>Shediac-Rizkallah &amp; Bone, 1998</td>
<td>Importance of planning for school-based programming sustainability</td>
<td>Sustainability of interaction between various contextual factors</td>
</tr>
<tr>
<td></td>
<td>Wandersman, Duffy, Flaspohler, Noonan, Lubell, Stillman, et al., 2008</td>
<td>Interactive Systems Framework (ISF)</td>
<td>Infrastructure and systems that necessitate the dissemination to occur while accommodating multiple perspectives (e.g. funders, researchers, practitioners, and technical assistance providers).</td>
</tr>
<tr>
<td></td>
<td>Durlak &amp; DuPre, 2008; Rones &amp; Hoagwood, 2000; Wandersman et al., 2000</td>
<td>Common interacting factors that influence implementation</td>
<td>Creation and interaction of the multi-levels of individual, parent, school, community, and cross-system involvement</td>
</tr>
<tr>
<td></td>
<td>Ialongo et al., 1999</td>
<td>Teacher role in implementation</td>
<td>Evidence of importance of role that teacher support had in framework</td>
</tr>
<tr>
<td></td>
<td>Elliot, Kratchwill &amp; Roach, 2003; Stevens &amp; Van Oost, 2001</td>
<td>Thorough consultation process</td>
<td>Importance of consultation between various levels of framework</td>
</tr>
<tr>
<td></td>
<td>August et al., 2003, 2006; Johnson &amp; Walker, 1987; Kay &amp; Fitzgerald, 1997; Kamps et al., 2000; Rones &amp; Hoagwood, 2000</td>
<td>Role of Parents &amp; Family</td>
<td>Support from family enhances positive student school involvement. Importance of family engagement and consultation</td>
</tr>
</tbody>
</table>
| | Almy, 1975; Carlsson-Paige, 2001; Crowther, Kaagen, Ferguson & Hann, 2002; Somech & Drach-Zahavy, 2000; York-Barr & Duke, 2004 | Role of Teachers | Critical role of teachers in educating students, role of teacher mentoring and leadership,
The various levels of the Integrated Program framework were placed according to the level of involvement in implementation of the prevention programming. At the heart of the framework is the student. Teachers, parents and family are integral to this model and are placed in the center to signify their level of influence in this model. The framework is intended to be circular to identify the collaborative process that is ongoing.
throughout the dissemination of the prevention program.

A visual display of the conceptual Integrated Program framework can be found below in Figure 3.

**Figure 3 - Conceptual Delivery for Implementation of School-based Promotion of Emotion Regulation Program- Integrated Program (IP)**

The Integrated Program model is a prevention model that focuses on addressing the social and emotional learning needs of school children from a holistic perspective: first, by creating early and targeted interventions for at risk children in the schools (i.e. individual services, small group, class-wide and school-wide); and secondly, by promoting competence and skills development among professionals (i.e. teachers, Educational Assistants, Child & Youth Workers) in schools through enhanced training and quality supervision; and thirdly, by developing across-service coordination in the community (i.e. referrals to mental health organizations). Community-wide in this setting
does not imply that The Integrated Program is a primary prevention model offered to every child and family in local municipalities. The model includes services offered to children, who are at the center of the framework, and at elevated risk of conduct problems, their parents, and teachers in school. The Integrated Program interventions are offered through the schools in the municipalities, and implemented in settings, including home and school (Westhues, Schmidt Hanbidge, Gebotys, & Hammond, 2009). For example, if a child displays comprehensive problem behaviour at home and in school, targeted interventions would be implemented in both arenas (e.g. parent training in combination with group based emotion regulation skills training in school). The Integrated Program model can be defined as a community and school-based joint effort to develop and implement comprehensive efforts to address children's emotional and behavioural challenges. Children's emotional and behavioural school challenges adversely affect the school's educational processes and this has the potential to limit the resources that teachers and principals have to focus on teaching students. As described in the literature review, schools aim to create an atmosphere that is conducive to healthy socialization as it likely promotes productive academic achievement (Rones & Hoagwood, 2000; Rutter, Maughan, Mortimore, et al., 1979).

For the current study, I investigated the Integrated Program framework in relation to specific factors that, I believe, have a critical influence on the implementation and delivery of services in schools. I explored the gaps that exist in the IP model related to specific key program factors, including training, supervision (i.e. quality and support), resources (i.e. staffing, supplies), technical (i.e. IT, curriculum) and stakeholder support (i.e. supervisory and board level). As well, key contextual factors, including political (i.e.
agenda, support), cultural (i.e. language, customs), economic (i.e. financial, priorities) and practice-based knowledge (i.e. evidence-base) figure prominently in the framework, but need to be explored and understood further. These program and contextual factors formed the basis of the research questions posed for this study. Through this research study, my aim is to address the gap in the research literature that exists when it comes to formulating a holistic or ecological view of overall environmental factors in schools, homes, and in the community that impact the quality of implementation of school-based prevention programming.

Research has shown that offering comprehensive, multi-component interventions has a greater impact in addressing risk and protective factors than do single-component programs (Elias et al., 2003; Kumpfer & Alvarado, 2003; Rones & Hoagwood, 2000). Delivering evidence-based programs in community settings has many considerations and variables that are unique, especially those programs that originated in research settings (Pollio & Macgowan, 2011). Hoagwood et al. (2001) commented that "acceleration of the pace at which evidence-based practices can be more readily disseminated will require new models of development of clinical services that consider the practice setting in which the service is ultimately to be delivered" (p.1179). When community settings have sufficient capacity to implement innovations, they are able to determine better outcomes.

In the literature review, there is an increased awareness that stress and mental health issues can negatively impact school and academic student success. When this is combined with a clearer understanding of the gaps in mental health services to children, a shift is beginning to occur with policy makers to a focus on a school mental health movement (Adelman & Taylor, 1999; Weist, 1999). It has been found that at any given
time, between ten and 15% of children aged 4 to 17 years (over 800,000 in Canada) experience emotional and mental health challenges that cause significant distress and impairment at home and impact school success. These may include anxiety, depression, aggression or hyperactivity. Recent survey results from Canada, the United States and the United Kingdom (UK) indicated that fewer than 25% of these children receive specialized treatment services (Burns et al., 1995; Costello, Angold, Barns, Erkanlis, Stangl, & Tweed, 1996; Leaf et al., 1996; Roberts, Attkisson, & Rosenblatt, 1998; Waddell, Offord, Shepherd, Hua, & McEwan, 2002).

Both the mental health system and the education systems have important roles to play in school-based delivery of mental health services and each has provided mental health services to students, but typically, the two systems have not collaborated or shared resources. There has been some confusion in roles between the education and mental health sectors regarding their responsibility in the schools. There are approximately 20% of children under the age of 18 dealing with mental health concerns (World Health Organization, 2004). Adelman and Taylor (2006) have recommended a complete restructuring of schools to form an interconnected web of supports to have systems of expertise and resources to effectively produce students who are successful in school. They suggest that efforts to conceptualize school-based mental health services will assist in the effective delivery of services. This concept forms a central component of the Integrated Program framework. My Integrated Program framework incorporates types of school structure and streamlines the implementation of mental health and education sectors resources and expertise and encourages a seamless approach in working together with families.
Countries such as Norway and Australia have implemented similar approaches to school-based mental health services, and similar to the IP framework, both have discussed the political and social context for implementation of the innovations (Corboy & McDonald, 2007; Kjobli & Sorlie, 2008). Both projects have support of political strategies, referring to various government ministry supports to improve services and efforts to assist at-risk families and children access interventions that are available (Ogden, Forgatch, Askeland, Patterson & Bullock, 2005).

In addition, there have been various collaborations that exist between the mental health system and the school system in Canada. Those research interventions identified in Canada have been predominantly specific projects (e.g. the Tri-Ministry Project - Hundert, Boyle, Cunningham, Duku, Heale, McDonald et al., 1999; the Montreal Longitudinal Experimental Study - Boisjoli, Vitaro, Lacourse, Barker & Tremblay, 2007). Although there has been some initial evaluative work done on school-mental health partnerships, further work is required to significantly improve these partnerships in Canada. This type of partnership is supported through the Integrated Program model.

**Emotion Regulation Program Model**

Emotional and behavioural issues are often the most common or second most common reason for referral to the high school health centers (e.g. CHHSC, 2001; Lear, 1998). There is growing recognition that these types of services represent an optimal approach in school care of students.

To demonstrate implementation of the Integrated Program (IP), I will now provide a general overview of a delivery of collaborative mental health promotion in schools. The Integrated Program framework advocates for the advancement of
collaborative school-based mental health services and barriers and challenges will be discussed in relation to this framework.

Following a description of this model with a systems ecological perspective, I will review the Integrated Program with a content analysis related to recommended implementation processes of this program that would include several distinct processes that correspond to the teacher facilitator role. There are similarities to Wandersman's ISF model (Wandersman et al., 2008). I will then recommend exploration and evaluation of the five critical factors related to implementation fidelity. Other elements will be added that I found to be relevant based on my personal experience in implementing and administering emotion regulation programs.

The emotion regulation model can be defined as a community and school-based joint effort to develop and implement comprehensive efforts to address children's emotional and behavioural challenges (Westhues, Schmidt Hanbidge, Gebotys, & Hammond, 2009). This model forms the foundation of the Integrated Program framework developed in my previous paper (Schmidt Hanbidge, 2009). Taken from an ecological perspective that is informed by and encompasses characteristics from the literature review, the framework incorporates multi-levels of systems from the individual, to organizational, to community contexts.

Within the proposed collaborative community and school-based Integrated Program framework, variables that are considered are evidence-based early intervention and treatment methods. These are incorporated into a multi-faceted approach with five predefined intervention areas: (1) child-focused interventions utilizing a group approach; (2) parent support interventions; (3) school-based interventions with a focus on
professional development for staff; (4) referral pathways/procedures for individual intervention; and (5) collaborative partnerships between schools and community agencies and programs (see Figure 4, page 56).

According to Weist (1997), these types of school-based mental health centers are growing in number and provide both preventive and interventive support and services to students. A short description of these services is outlined in Figure 4, page 64. The Integrated Program services are applicable to multi-levels within the school and community and would be accessed dependent on need and referral.
### Figure 4 - Description of intervention components

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child</td>
<td>1) Emotion regulation, coping, and social skills weekly groups. Selected &amp;</td>
</tr>
<tr>
<td></td>
<td>indicated behaviour levels</td>
</tr>
<tr>
<td></td>
<td>2) Universal in-class social skills</td>
</tr>
<tr>
<td>Parent</td>
<td>1) Promotion of effective parenting skills through group work for parents of</td>
</tr>
<tr>
<td></td>
<td>children in both selected and indicated groups of children with mild/moderate disturbance of conduct and emotions</td>
</tr>
<tr>
<td></td>
<td>2) Home-based family support work for parent(s) of those children identified with moderate levels of disturbance</td>
</tr>
<tr>
<td>School Staff</td>
<td>1) Professional teacher and staff training and development identify and assess problem behaviour</td>
</tr>
<tr>
<td></td>
<td>2) Provision of classroom strategies for teachers with an emphasis on problem solving, social restitution, emotion regulation and other skills that can be integrated into classrooms</td>
</tr>
<tr>
<td>Community</td>
<td>1) Referrals to community mental health centre supports for assessment/treatment of children and families with moderate disturbance</td>
</tr>
<tr>
<td></td>
<td>2) Assist professionals in community through training to identify and assess problem behaviours</td>
</tr>
<tr>
<td></td>
<td>3) Participation in school and community committees to promote mental health innovation.</td>
</tr>
</tbody>
</table>

### Implementation Considerations

In this section some of the local challenges will be reviewed that are necessary to consider when implementing this prevention initiative. Classifying the ranges of emotional and social health challenges is useful for schools to determine the level of
intervention required (e.g. how much and how often does the problem interfere with school functioning?) and to ensure that appropriate services and supports are available. The majority of students will not require specialized programs aimed at treating a mental health issue, but in the Integrated Program, universal applications and approaches would be provided to all children through school-wide implementation, aimed at preventing emotional, social, and behavioural challenges. Other interventions in the framework would be aimed at children who have experienced family or environmental challenges and require additional support through individual, group, and/or family interventions. Individualized specialized treatment initiatives, such as counselling are referred to mental health providers once a disorder or condition has been established. Prevention, at all levels, has had and will continue to have a strong presence in school-based services. A focus of the Integrated Program model would be to ensure implementation while coordinating service integration.

Another Integrated Program implementation challenge particular to identified mental health issues is the stigma associated with participation in mental health related programs. This can be a significant challenge for providers, schools, and families to overcome. The STEAM program, wherein my experience lies, was able to have students and families view services as an added benefit to being a student in the school. Students and teachers viewed the program itself as a leadership development opportunity alike. Skill development programs such as these increase school bonding and attachment and improve student peer and student-teacher relationships (Graziano, Reavis, Keane, & Calkins, 2007)

Overall, many prevention activities take place in school settings to prevent or
reduce problem behaviours and to promote positive environments, as evidenced by the Gottfredson and Gottfredson (2001) study documenting the school principals' report which determined that the average number of prevention initiatives operating in a school is fourteen. With this many programs and activities, schools may spread themselves thin and have little dependable guidance available to them when choosing from the wide array of options.

There is a need to consider models to enhance the relationship between community services and the ability of schools to access and provide mental health services. This proposed mental health promotion framework that would support the Integrated Program could contribute to an already outstanding range of mental health services that have addressed emotional disturbances in children, increased health benefits, and increased school success.

Research has found that it is challenging to sustain evidence-based prevention programs in community practice settings (August et al., 2006; Pollio & Macgowan, 2011). Any innovation requires system support, such as a host (e.g. organization or political climate) and sufficient support in the form of leadership, "buy-in," motivation and skills as identified earlier in this paper. Currently, school-based initiatives are most often implemented with varying degrees of quality and this leaves much room for improvement (Gottfredson & Gottfredson, 2002). System support can be built through training and technical support. Multi-level resources are required to successfully implement an innovation and this includes human resources, fiscal resources, and technical resources (Wandersman et al., 2000).

Wandersman's et al. (2008) ISF framework was described earlier in chapter 2 and
was identified by three primary systems that may be helpful to enhance the implementation of preventive services in communities. The Prevention Support System is responsible for building community capacity and assisting the community in implementing effective practices; the Prevention Research System is responsible for developing, testing, and packaging prevention programming; and Prevention Delivery System is responsible for the delivery of specific services.

The proposed Integrated Program framework provides an opportunity to apply the Wandersman et al. ISF to assist in the successful implementation of school-based mental health partnerships. In order to effectively provide mental health prevention services in a school-based setting, three coordinated primary systems are needed to implement programming at a local level, and they include: 1) Prevention Delivery System, 2) Prevention Support System, and 3) Prevention Research System. I will address the levels of Delivery, Support and Research and specifically focusing on implementation of the proposed innovation.

1) Prevention Delivery System

The first element of the Integration Program model is the description of the program content and determining the structure, focus, and delivery of the program. The Delivery component of the Prevention System needs to begin with a strong theoretical model that has been tested empirically. Additional target characteristics that must be considered include whether the community is a rural or urban centre, and the ethnic makeup of its population.

A strong consideration needs to be the target population and whether the program is universally targeted to all students or to selected individuals who would benefit from
indicated demonstrated risk factors. The intended audience of the Integrated Program must be made clear with the schools, whether the entire innovation is delivered school-wide, or whether selected components are delivered to specific populations at predetermined intervals (e.g. primary, junior, and intermediate grades). Many mental health prevention programs include a combination of these three target audiences and school communities would benefit the most by implementing all three levels of the innovation. The Integrated Program encompasses all three populations dependent on need and would be successively implemented across settings.

It is also important to consider the age of the population the program is targeted for as specific issues and skill occur at different developmental stages. The development of emotional regulation skills is a key task during early childhood, especially between the ages of five to eight years (Samples & Aber, 1998). A key time in child development is the middle childhood ages of eight to 11 where the integration of emotion regulation, cognition, and behaviour components develop social competence (Greenberg, Kusche, Cook, & Quamma, 1995). The selected and indicated components of the Integrated Program would target specific children identified with emotion regulation and behaviour challenges between grades one through eight, while the universal segments target the entire school population.

The Integrated Program content would be focused on the key elements and core components of the Integrated Program that are essential for the frequency and the duration of the intervention. They include the number of sessions, timing and method of delivery. Program materials are more appealing to the intended users if they are visually appealing, developmentally appropriate, culturally sensitive, and are well-organized and
easily understood lesson plans. Clear curriculum manuals assist both the training and implementation process for the program delivery staff.

Parent-child interactions are key in shaping these emotion regulation skills; therefore, it is critical to offer parent support sessions as one component of the Integrated Program (e.g. Johnson & Walker, 1987). Engaging parents and promoting effective parenting skills among families is a key priority of the Integrated Program. Collaboration between school and the family is an essential element of the delivery component of the framework.

It is important to determine who will deliver the Integrated Program and it is recommended that an on-site school "expert" facilitator be recruited and trained by the program developers to act as the liaison within and between the school, the children, the parents, the teachers, and the program developers. There would also be an off-site program administrator who would act as the liaison between schools, be responsible for recruiting and training the program facilitators, and provide their regular supervision.

2) Prevention Support System

Various levels and forms of the support system are required as part of the Prevention Support System for the proposed Integrated Program. Initially, it is necessary to build capacity by focusing on infrastructure and skills development within the school setting to accommodate the new innovation in each school as necessary. Establishing or enhancing the local infrastructure is the key to building support for the Integrated Program. Assuring accountability, reporting and ensuring program standards are adhered to are also key elements that must be the responsibility of the Prevention Support System and have been incorporated into the Integrated Program model.
Prevention support is available through a wide variety of national, provincial, and local resources. As this model is community-based, school boards have a role and responsibility for collaboration in the development and promotion of the infrastructure for whole school board improvement. The provincial government of Ontario made an improvement to publicly funded education in 2007 by their commitment to the Character Development initiative and produced the following document, "Finding Common Ground: Character Development in Ontario Schools, K-12", found through the web link; \url{http://resources.curriculum.org/secretariat/files/Dec11CharacterReport.pdf} (Ontario Ministry of Education, 2006). The Character Development Resource Team (CDRT) is one resource nested within the Ontario school board system in place to develop practices necessary for implementation of the Character Development programs and initiatives designed to enhance the student's character and promote positive school climates. Eight CDRT's are established across the province to facilitate implementation. Five regional teams represent the geographical areas of the province; one team represents the Catholic Boards and two teams represent the French language boards. The Provincial Character Development Resource Team members are school board leaders with experience in implementing, establishing and extending character development programs. Their responsibilities to support the implementation and extension of The Character Initiative will include: sharing successful practices; and providing support, advice and leadership. The Ministry of Education of Ontario created the Character Education initiative and the goal is to develop school environments where all people treat one another with care and respect (Ontario Ministry of Education, 2008). The Ministry's initiative is based on four components: academic achievement, character development, citizenship development and
respect for diversity. The Ministry of Education coordinates and provides leadership for each CDRT.

The Character Education Partnership (CEP) is a coalition of groups and individuals whose role is to advocate for character education. The CEP is an existing school board resource to individuals and schools and the supports are based on the work of educational experts in the field of character development and education. Both the CEP and the CDRT could assist in the implementation, adoption, and diffusion process of the Integrated Program.

The Ministry of Education's role in this Integrated Program innovation would include the "Character Development" portfolio existing in its current infrastructure that is designed to assist preventive efforts across school boards. The Ministry has been directed to establish school board policy and practices that comply with the Education Act, regulations, and policy documents, including policy/program memoranda. The proposed Integrated Program innovations require strategic coordination, cooperation and support from the Ministry of Education to implement the framework. The Ministry has the capacity to promote technical assistance and support and other resources to enhance capacity building of the organizations involved in the Integrated Program.

One of the roles of the Support component of the ISF model is to build local capacity for integration of an innovation into a community. A study evaluated institutional sustainability of the Early Risers "Skills for Success" conduct problems prevention program (August et al., 2006). The results of this effectiveness trial of the evidence-based program which was implemented in a non-profit community agency provided findings which conclusively showed that planning for sustainability was a
critical component of success for the program. Hord et al. (1987) found that it often takes 18 months to three years to fully understand, and to integrate a new innovation into existing practice to become a permanent part of the school community. The Ministry of Education would have a critical partnership role to ensure the successful integration of this model over time into the school boards and communities.

3) **Prevention Research System**

The Research System is primarily responsible for selecting appropriate interventions to match the target population. Designing needs assessments to match programming needs is part of the matching process to ensure that quality programming is delivered in schools. This Research System group can be implemented to determine the school's readiness for a program. For programs that incorporate a curriculum, the Prevention Research System can ensure the curriculum and modules complement the school and Ministry of Education academic requirements.

The use of program measurements should always be considered for the Prevention Research System group with specific matrixes used to evaluate program components and program outcomes. Determining the measurement tools required for each intervention and conducting the evaluation process falls under the Prevention Research System team's responsibility. The Prevention Research System is also required to assess and measure the components of fidelity of implementation to determine the level of success in this regard.

To determine whether the Integrated Program will be implemented with fidelity, the five measures of fidelity as described by Dane and Schneider (1998) are addressed in the following table. The implementation aspects that were discussed earlier correspond
with the interventions of child, parent, school staff and community in Figure 5, page 65. These five aspects of implementation include: adherence, exposure, quality, participant responsiveness, and program differentiation. Figure 5. below offers a description of the program components aligned with the implementation fidelity evaluative recommendations that have been adapted from an Australian evaluation of a prevention initiative by Corboy and McDonald (2007).

**Figure 5 - Emotion Regulation Framework with Implementation Fidelity Measures**

<table>
<thead>
<tr>
<th>Components</th>
<th>Measures and assessments for fidelity implementation evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child</td>
<td></td>
</tr>
<tr>
<td>1) Emotion</td>
<td><strong>Adherence</strong>: Trained observer in group sessions recording how program was delivered according to program developer's specifications</td>
</tr>
<tr>
<td></td>
<td><strong>Exposure</strong>: Recording of the number of sessions or hours of programmed activity in small groups and number of classroom sessions</td>
</tr>
<tr>
<td></td>
<td><strong>Quality</strong>: Group facilitator performance that enhances delivery of intervention.</td>
</tr>
<tr>
<td></td>
<td>Periodic observation of group and classroom programming to ensure curriculum and delivery method is followed</td>
</tr>
<tr>
<td></td>
<td><strong>Participant Responsiveness</strong>: Periodic</td>
</tr>
<tr>
<td>2) Universal in-class social skills</td>
<td>Child group attendance monitored.</td>
</tr>
</tbody>
</table>
### Contextual Implementation Factors

<table>
<thead>
<tr>
<th>Parent</th>
<th>1) Promotion of effective parenting skills through group work for parents of children in both selected and indicated group of children with mild/moderate difficulty conduct and emotions</th>
<th>Adherence: Trained observer in group sessions recording how program was delivered according to program develop specifications Parent group attendance monitored</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exposition: Recording of the number of sessions or hours of programmed activity in parent groups and indicated group of number and length of home sessions</td>
<td>Quality: Periodic observation of group programming to ensure curriculum and delivery method is followed</td>
</tr>
<tr>
<td></td>
<td>2) Home-based</td>
<td>Participant Responsiveness: Periodic</td>
</tr>
</tbody>
</table>

- Observation of group and classroom programming by trained observers to gauge children's interest and enthusiasm.
- Individual interviews with program facilitators to gauge children's interest and learning.

**Program Differentiation:** Review of manual and curriculum to clearly differentiate program theory and components.

Observation of sessions to determine program language is specific to theory of program.
| School Staff | 1) Professional teacher and staff training and development to identify and assess problem behaviours | **Adherence**: Trained observer in group training recording how program was delivered and whether according to program development specifications  
**Exposure**: Recording of the number of training sessions or hours of programmed activity in training sessions and classroom activity  
**Quality**: Training facilitator performance that enhances delivery of intervention |
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>School Staff</td>
<td>2) Provision of classroom strategies for teachers with an</td>
<td>---</td>
</tr>
<tr>
<td><strong>Contextual Implementation Factors</strong></td>
<td><strong>emphasis on problem solving, social restitution, emotion regulation and other skills that can be integrated into classrooms</strong></td>
<td><strong>Periodic observation of training to ensure curriculum and delivery method is followed</strong></td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Participant Responsiveness</strong>: Periodic observation of programming by trained observers to gauge teacher’s interest and enthusiasm</td>
<td></td>
<td><strong>Individual interviews with teachers to understand interest and increased knowledge and skill base</strong></td>
</tr>
<tr>
<td><strong>Program Differentiation</strong>: Review of manual and curriculum to clearly differentiate program theory and components</td>
<td></td>
<td><strong>Observation of training sessions and classroom instruction to determine program language is specific to theory of program</strong></td>
</tr>
<tr>
<td><strong>Community</strong></td>
<td><strong>1) Referrals to community mental health centre supports for assessment/treatment of children and families with moderate disturbance</strong></td>
<td><strong>Adherence</strong>: Trained observer in training sessions recording how training was delivered according to program development specifications <strong>Exposure</strong>: Recording of the number of sessions or assessment/treatment hours of programmed activity in training sessions <strong>Attendance</strong>: Attendance in training monitored Number and type of referrals monitored Attendance at committees and community events monitored <strong>Quality</strong>: Periodic observation of training to ensure <strong>disturbance monitored</strong></td>
</tr>
<tr>
<td>context</td>
<td>description</td>
<td></td>
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</tr>
</tbody>
</table>
| professionals in community to identify and assess problem behaviours | facilitator performance enhances delivery of intervention and curriculum is followed
| Completed checklist of referral list to ensure referral procedure is followed and type of therapy or support labeled |
| 3) Participation in school committees to promote mental health innovation | **Participant Responsiveness:** Periodic observation of training by trained observers to gauge community partner's interest and enthusiasm
| Individual interview with trainers to understand community partner's interest and learning about identifying and assessing problem behaviour |
| **Program Differentiation:** Review of manual, curriculum, and all program materials to clearly differentiate program theory and components |
| Observation of training sessions to determine if program language is specific to theory of program |
| Ensure that individual sessions address program component with language as set out in manual through a checklist completed by community partner |

Analysis of the various levels of community intervention will assist the program developer's understanding to determine whether the Integrated Program is implemented.
with fidelity. The recommended steps in examining the process of fidelity implementation are useful in pinpointing aspects of implementation that did not go as planned. Consideration of the factors involved in implementation of an innovation assists with the transportability of the intervention to other schools, boards, and districts. Implementation does not occur in a vacuum; it involves many stakeholders and collaborators with many factors affecting the outcomes. Ultimately, the coordination between various community stakeholders, program implementers, and school communities provides the basis for successful implementation in our schools.

Next, a descriptive summary is provided about the case example, STEAM, utilized in this study.

**STEAM: Skills & Tools for Emotions Awareness and Management**

**Elementary School Program Overview**

The STEAM program (Skills & Tools for Emotions Awareness and Management, 1999) was developed in a community of southern Ontario, Canada in response to needs expressed by the local community and both local school boards including parents, social workers at social agencies, teachers, and principals, for additional support for students in schools. With the support of school board personnel and university researchers, a community mental health centre, K-W Counselling Services developed the school-based program. K-W Counselling Services was founded in 1950 and is a not for profit community-based counselling service offering a wide variety of counselling programs to diverse communities. K-W Counselling’s webpage is [http://www.kwcounselling.com/pages/steam](http://www.kwcounselling.com/pages/steam) and the organization mission posted on the website is:
Inspired by a deep commitment to social responsibility and our optimism in the power of relationships, KW Counselling Services reaches out with its community partners to all families, children, individuals and neighbourhoods to discover with them those strengths and possibilities that lead to fulfilled and productive lives.

Almost 44,000 individuals were served by the organization in 2011 and over 800 of those served were STEAM participants. STEAM is funded through United Way support, the local school boards, and time-limited grants from foundations and corporate sponsors and is offered at no cost to program participants.

STEAM addresses and prevents the potentially serious, long-lasting, and far-reaching impacts of the lack of emotional and behavioural regulation skills on the affected students, their peers, their families, school personnel, and a range of community institutions (police, legal, social, mental health, etc). The STEAM program is a comprehensive, interactive and preventive emotions management program designed to help children, families, and teachers better understand and more effectively respond to emotionally challenging situations.

The purpose of STEAM is twofold: 1) to systemically and substantially improve a serious community situation, the lack of emotional and behavioural regulation skills, affecting approximately 10% (ages 6-12) of classroom students (small groups component); and 2) to help all students learn critical life skills with regard to emotions management and leadership (school-wide educational component).

Within the school-based STEAM program, there are two distinct parts; one component is comprised of closed small group activities, and the other is the school-wide component which aims to involve students within the entire school community to integrate emotion regulation skills more broadly. Schools may choose the option of
having both the small group and the school-wide activities, or they may select the small group component only.

**Theoretical/ Conceptual Framework**

Given the principle that the developing child is strongly influenced by context, Bronfenbrenner's model of the nature and levels of context has formed the framework for the STEAM program (Bronfenbrenner, 1979; Bronfenbrenner & Crouter, 1983). As well, recognizing the need to look at the family from several perspectives simultaneously within a variety of contexts has also led to the adoption of the ecological framework (Bronfenbrenner, 1974; Garbarino, 1992; Heying, 1985) in STEAM. This ecologically oriented model emphasizes not only the teaching of skills, but also the creation of real-life opportunities to use skills and the structures that provide reinforcement of effective skill application. The generalization procedures, teacher training, and a level of parent participation utilized in STEAM creates environmental support from peers, family members, teachers, and other concerned community members.

This intervention strategy is based on an ecological framework and the program is inclusive of emotion regulation theory (Cole & Cole, 1996; Thompson, 1994), social and emotional learning (SEL) theory (Elias et al., 1997; McNeeley, Nonnemaker, & Blum, 2002; Osterman, 2000), and cognitive behavioural techniques (Beck, 1975) to develop emotion regulation and communication skills. The STEAM program emphasizes a network of contextual factors within which the school is both directly and indirectly influential on the development of protective factors for children in elementary school. The STEAM model includes both universal and selected strategies for serving families of young children that present with a range of problem behaviours and diverse
developmental histories. Best described as a “tiered” strategy, the school-wide level of intervention builds upon the small-group level. The universal intervention reaches all children within the school setting, whereas the selected level of programming addresses the needs of at-risk students and families.

Another assumption of the STEAM program is that children and family enter the program with a repertoire of personal and familial strengths. The activities of the program assist the process of building skills and developing families' current resources through a strengths-based perspective (Saleebey, 1992) which reduces risk factors and builds developmental assets (Leffert, Benson, & Roehlkepartain, 1997) and increases protective factors by working together with parents, teachers, children and families.

Program Information

This school-based program was designed to assist elementary school children who are having difficulties managing their emotions and as a result, controlling their behaviors. It is a proactive, environmental-level intervention response to the behavioural problems identified in schools, and allows children to become more successful in managing their behaviors at school and at home. Parents, teachers, principals, and community social workers collaborate to help children “identify underlying feelings and thoughts that affect the choices they make” (Brochure for K-W Counselling Services, 2002).

The overall program goals are; (1) to support children in school to identify and effectively manage emotions; and (2) to strengthen each child’s self esteem and increase his/her self-confidence. STEAM program objectives include:

- To increase the child’s awareness and identification of feelings, situations, and physical cues associated with different emotions.
Contextual Implementation Factors

- To teach specific strategies to children (problem solving, negotiating, role-play) to effectively manage their emotions and behaviours.
- To enhance positive communication through a sequential skills building process.
- To document the increased positive behaviours exhibited by children as reported by parents, teachers and principals.
- To increase the child’s self-control by decreasing the numbers of impulsive behaviours, principal visits, school suspensions, and playground incidents.
- To validate feelings and develop positive leadership skills.
- To increase the child’s social support by providing group access to peers, teachers and principals.
- To increase direct involvement and communication between parents, children and schools.

Program Evidence & Evaluation Procedures

Outcome evaluations, a three year longitudinal study, a process evaluation, and annual program reviews have determined the effectiveness of this evidence-based program (Bidgood, Wilkie, & Katchaluba, 2010; Hammond, Westhues, & Schmidt Hanbidge, 2009; Westhues, Schmidt Hanbidge, Gebotys, & Hammond, 2009) to develop children’s emotion regulation skills. Pre and post qualitative and quantitative data are collected for each program cycle and stored in a data base. Annual evaluation reports are submitted to stakeholders and program funders. Longitudinal study outcome measures tested included: student emotional awareness, emotion coping, expression management, self-efficacy with regard to managing emotions, self-esteem, academic performance, and behavioral infractions within the school system. Longitudinal data were analyzed using a repeated measures ANOVA and showed that the program was effective in teaching children emotion regulation skills. For the most part, this learning was sustained at one year and two year follow-ups (Westhues et al. 2009).

Three self-report instruments are used to collect data pre and post program from children participating in each program cycle: the standardized Emotion Expression Scale
for Children (Penza-Clyve & Zeman, 2002), the standardized Coopersmith Self-esteem Inventory (Coopersmith, 1981) and the Child Form which was developed for the program. The Emotion Expression Scale for Children is a 16-item self-report questionnaire that uses a 5-point Likert scale to assess poor emotional awareness and reluctance to express emotion from the child’s perspective. Coopersmith defines self-esteem as the “evaluation a person makes, and customarily maintains, of him- or herself; that is, overall self-esteem is an expression of approval or disapproval, indicating the extent to which a person believes him or herself competent, successful, significant, and worthy” (Coopersmith, 1981).

Parents complete one self-administered instrument (Parent Form) that was developed by members of the program development committee to gather data on the outcomes identified above to assess their perception of the impact of the intervention while home room teachers complete another self-administered instrument also developed for the program, the Teacher Form. Comparison or wait-list groups of students also complete all program outcome measurement instruments each program cycle.

Outcome client evaluations during program cycles are a regular component of the STEAM program dissemination procedures and the information collected provides direct input to client service. Program staff and student interns are involved in the cyclical systematic outcome evaluation procedures. They are trained to administer and collect data while student interns learn the data entry procedures for the quantitative and qualitative information into SPSS (Statistical Package for the Social Sciences) software under the tutelage of the program administrator. Maximizing stakeholder roles (staff and students) in the evaluation procedures encourages participation by those who are directly
delivering the program. Direct staff and student involvement in the evaluation procedures enhances the operations of the evaluation procedures and helps to clarify the utilization of the information collected and also aids in the delivery of the prevention program to families (Pancer, 1985).

Evidence-based practice in social work is consistent with professional standards of practice as outlined in the Scope of Practice Statement in the Canadian Association of Social Workers and in the NASW Standards for School Social Work Services, and in the Standards for Social Work Practice with Groups (Canadian Association of Social Workers [CASW], 2008; National Association of Social Workers [NASW], 1999; Association for the Advancement of Social Work with Groups, 2005). As part of reflective practice, social workers who support evidence-based practice continue to learn about new models of practice and incorporate the latest evidence into models, collect evidence from a variety of sources, evaluate programs and interventions in a consistent manner, and report their findings to ensure knowledge dissemination (Macgowan, 2006; Pollio, 2002). The STEAM curriculum manuals and delivery procedures of the program have been revised several times over the past decade to reflect new evidence or advancements in practice.

Training and Supervision

Every group cycle, staff members, teacher facilitators, social workers and student interns receive training and orientation in a group setting prior to the start of the small group and school-wide sessions. This orientation session prior to the beginning of the group sessions is 1-½ days in length, is facilitated by the program administrators and is
offered at the community offices of K-W Counselling Services. At these meetings, individual key program activities are reviewed (e.g. Footprints), pertinent facilitator roles and responsibilities are discussed (e.g. behavior management and room set-up), procedures and protocols are shared (e.g. child maltreatment reporting procedures), evaluation activities are reviewed (e.g. administration of pre and post tests), group supplies are distributed (e.g. STEAM Kits, snacks, and program manuals), and the sharing of ideas and the provision of support is encouraged between program facilitators and schools. In addition, all program facilitators attend STEAM team meetings at the community mental health center three times throughout the program’s 12 week operating schedule to discuss program facilitation activities. One-on-one meetings are held in schools with the program administrator and the group facilitators to provide direct supervision and problem solving strategies are utilized as necessary.

**STEAM Small Group Program Structure**

**Referral & Selection Process**

The referral process for STEAM consists of a two-tiered approach, involving both school professionals and parents. Forms are completed by both school and home, based on behavioural concerns that may be present at school or at home. An information letter is sent home to parents. By including parents in the referral process, they are provided with an opportunity to access support services for those of their children who may be coping in school, but are experiencing behavioral difficulties at home.

A team of teachers, school personnel, the teacher facilitator and principal meet to nominate children from their school to participate in STEAM. After schools form an
initial wish list of nominees, children are assessed by a screening process on the basis of selection criteria, which include: group readiness; present behavioural challenges for the child, family and school; past group experience; willingness to participate; and overall group composition. In addition, it has been found to be helpful to have more than one child from a specific class participate in a group. The list of nominated children are then interviewed individually by the teacher facilitator, the STEAM social worker and the student intern to select 8 children who will be the group participants.

**Description of Program Participants**

Descriptive program statistics indicate that on an average, the program is comprised of 64% male participants and 36% female participants who are between the ages of 6 to 14. The primary school-aged children between grades one to three and ages 6 to 8 participate in one group, while another group consists of junior-aged children between grades four to six, and ages 9 to 11, whereas a third group is designed to meet appropriate developmental criteria for intermediate-aged children between grades seven and eight (ages 12 to 14). Candidates selected for the program may exhibit some of the following target signs: low tolerance for frustration; inability to deal with authority figures; poor self control for their developmental stage; or easily influenced by peers.

**Program Activities**

STEAM small group weekly sessions begin either in the fall term or in winter each year. The children in the STEAM group program participate in closed-group sessions of 90 minutes each week for 12 weeks. These groups are arranged to ensure that each child is with children from a similar age group. All sessions are co-facilitated by a
teacher facilitator from the school, a social worker, and a social work or psychology intern who receive ongoing training and supervision from the program administrator. The facilitators are supported by well-developed manuals, in both paper and CD disk formats, outlining curriculum content and process. The use of manualized curricula for group programs has been shown to increase the likelihood of program fidelity, ease replication opportunities and aids in building evidence-based practice (Galinsky, Terzian, & Fraser, 2006; Muskat, Mishna, Farnia & Weiner, 2010; Scaturo, 2001). The STEAM curriculum manual focuses on enriching vocabulary and awareness of emotions through identifying body cues and thoughts, as well as teaching assertive decision-making and conflict resolution skills. The program is designed to help participants develop impulse control, problem solving strategies, behaviour skills training, assertiveness training, and emotion management strategies. Program activities included relaxation training, role-playing, journaling of the children’s feelings, completion of an emotion log, and exercises in self awareness. The first several sessions focus on increasing emotional self-awareness and feeling development teaching children how to recognize and label their feelings and what is happening in their body (e.g. heart pumping fast). This teaching helps the children connect their feelings with their body actions. The program also emphasizes calming strategies when the children have strong feelings (e.g. frustration, anger, jealously, sadness). The ability to detect and label emotion signals is essential to a successful emotion program. Sequential lessons progress to encourage students to develop appropriate social and communication skills whereas the subsequent lessons focus in interpersonal problem solving skills. The program teaches that there are some external factors that children have no control over and in these situations to problem solve to the
best of their ability. The community mental health agency supplies a STEAM program Resource Kit to each school which includes craft activities and supplies (e.g. erupting volcano, play clay supplies, card games, videos/CD's and posters).

Three separate manuals developed for group facilitation include curriculum content in the STEAM program: one for the Primary age (6 – 8), another for Junior age (9 – 11), and the third for the Intermediate age (12 – 14) with the program modules geared to match student’s developmental levels. The curriculum manuals outline a series of 12 detailed lessons with handouts that scaffold upon each skill. Each session and activity is guided by specific goals, including step-by-step instructions with copy-ready materials. This makes the curriculum easy to replicate. The teaching methods outlined in the manual include games, role-plays, craft activities, songs, stories and group activities. The initial group sessions focus on vocabulary development and increasing student knowledge about emotional literacy, then progress to interpersonal problem-solving skills, such as assertive communication and negotiation skills. The manuals include practical information for program facilitators on group process and child development in recognition of the program’s reliance on group activities and discussion related to appropriate age groups. These manuals have been modified over time to reflect changes in practice as reported by the program personnel and program users and as the work with diverse populations has expanded.

Parent Engagement

Engaging parents, guardians and families is a key component of the STEAM program. Targeted behavioural parent training interventions have been shown to ameliorate early conduct problems, such as aggressive or disruptive behaviors in
populations at risk (Schweinhart, Barnes, & Weikart, 1993; Taylor & Biglan, 1998). Each week, readings, information and letters are sent to families via backpack mail or home email to engage families and encourage generalization to the home environment. A manual developed solely for parents/guardians in the form of a Parent/Guardian Handbook outlines activities and methods to teach parents/guardians to reinforce the key STEAM concepts at home. Specific activities are described with clear instructions for family members, such as Positive Power Talk, Being Assertive, and use of a Hassle Log. Families are invited to a series of three “Parent/Guardian nights” held at each school at the beginning, middle and end of the program designed to promote parent-school engagement. The final Parent/Guardian night is a family celebration, where the entire family is invited to attend. Snacks or meals are served and the student participants demonstrate the various activities they have learned in STEAM to the entire group (often 30 or more participants).

School-wide Program Structure

The STEAM School-wide prevention component was developed in 2002. It is a universal, strengths based, sequential skill-building program that reduces risk factors and increases protective factors by working together with the students, teachers, staff and the principal in each school. The overall goal and broad vision for school-wide STEAM is:

To equip elementary school children, teachers, and schools with the knowledge, skills and resources to effectively manage conflict and their emotions, to increase social and emotional competencies, and to create supportive conditions for peaceful and safe schools in our community (STEAM Brochure, K-W Counselling Services).

All students in participating schools participate in the small-group STEAM groups, but schools that have school-wide STEAM participate in many additional activities. Some of
these activities include: whole-school assemblies; hallway bulletin boards; morning announcements; and reinforcement by teachers and principals. In school-wide STEAM, specially trained teacher facilitators visit classroom settings each week for 20 minutes to teach whole classes the key STEAM concepts. The STEAM small group students take a leadership role in presenting skills and strategies to other students in the class by assisting the teacher facilitator. These activities are run in conjunction with the small-group STEAM program component, and operate throughout the school year. A Teacher Facilitator's Manual with classroom exercises was developed in 2002. This manual outlines 12 sequential classroom presentations, which can be presented on a weekly basis or chosen specifically to meet the classroom's needs.

**Primary Stakeholders**

There are numerous stakeholders vested in the design of the STEAM program and its success. Collaborative efforts between funding bodies and foundations, program committee members, school boards, university faculty and community members enhance dissemination of the program. The emphasis on partnerships among schools, community and university is important to enhance the ecological focus and the local sustainability of empirically supported prevention programming.

**Conclusion**

This study aims to address the gap in the social work literature about school-based implementation of prevention initiatives and one of the purposes of the paper is to formulate the key factors required for successful program implementation, specifically in the field of prevention. To address the gaps identified in this literature review, the Integrated Program framework was proposed and developed.
The two key questions this research study addresses include; 1) how do training/supervision, stakeholder support, resources and technical support factors enhance implementing an emotion regulation prevention program with fidelity?, and 2) how do cultural, political, economic, and practice-based contextual and motivating factors influence teacher facilitators and program administrators in elementary schools in implementing an emotion regulation prevention program with fidelity?

In addition to exploring these research questions, the study purpose is to refine the (IP) Integrated Program model through the analysis of the interview data. It is intended that theory development will occur from analysis of the data into the various factors affecting successful prevention programming implementation and a great deal of new information will be provided. Interviews with teacher facilitators and program administrators will generate a deeper understanding of the motivating and contextual factors that shape the program implementation processes. Exploration of the economic, cultural, political, and practice knowledge related to practice contexts of teacher facilitators’ implementation of an emotion regulation program in elementary schools will provide the experiential evidence to draw on in modifying the Integrated Program framework. The analysis will also assist school board officials and administrators to identify and interpret both the concerns and extent of program implementation by teacher facilitators.

The objective of this study is the refinement of the Integrated Program framework to deepen our understanding of implementation of school-based emotion regulation prevention programs grounded in the experiences of principals, program administrators and teacher facilitators.
CHAPTER 3: RESEARCH METHODOLOGY

This chapter provides a description of the research methodology that was used for this study and describes the assumptions underlying it. The philosophical approach that guided me in this study was falliballistic realism, the research method was a qualitative inquiry, and the primary research technique was the semi-structured interview. Furthermore, the chapter provides a description of the following research design elements, including the research paradigm, the research design, the study sample, and the process of data collection and analysis procedures.

Research Paradigm

Falliballistic realism, a heuristic research paradigm, developed for social sciences (Heineman & Pieper, 1981, 1982, 1987, 1989; Manicas & Secord, 1983) guided me in this study. Lincoln and Guba (1985) describe the philosophical paradigm as the “underlying belief system or world view that guides the investigation” (p. 105). This paradigm bridges the naturalistic beliefs of multiple truths and experiential realities with the positivist beliefs of a fixed and knowable reality (Anastas & MacDonald, 1994; Halton, 1992; Klee, 1997). This perspective posits a reality where a variety of contexts exist. Falliballistic realism also acknowledges that boundaries around an area of study are created for the purposes of research, and as a result, we can only understand a part of a reality. In addition, knowledge is fallible, and claims of knowledge are always open to dispute as new information comes to light. Research is viewed as trying to understand or describe complex phenomena in order to make sense of the world around us (Westhues, Cadell, Karabanow, Maxwell & Sanchez, 1999).
Fallibilistic realism also considers the historical and situational contexts of the purpose of research and the role of the researcher. In the relationships between the researcher and study participants, the data and various concepts are reciprocal and interdependent as Westhues et al. (1999) describes "the researcher decid(es)ing when to share in defining the process" (p. 140). Anastas illustrates this paradigm as one similar to a still photograph where the researcher is the photographer. Depending on who is taking the picture, the composition or timing of the picture, the photo can vary. In this perspective, flexibility is encouraged in the research methodology to gain a thick and rich description of the data to try and gain an understanding of the context of the phenomenon (Anastas & MacDonald, 1994). Typically, flexible research follows an inductive method which is the way I collected the data for this study and then development of a theory followed thereafter. This perspective acknowledges there are inherent complexities in conducting any research.

Approaching this study from a fallibilistic perspective influenced my research because it also fits well with my theoretical approach to practice. I appreciate the perspective that knowledge is understood to be a partial part of a reality depending on the context where and when the knowledge was gained. This is consistent with my thinking and the approach I took in this study to explore this topic from a grounded theory perspective. Grounded theory is discussed by Charmaz (2006) and she suggests that researchers interpret the reality around them rather than believing there is one reality for everyone. I appreciate the flexibility the fallibilistic realism perspective allows for researchers to explore the breadth of a research topic and the opportunity to select the research method best suited to answering the research question(s). Also, as is evidenced...
in this paper about the implementation process, the role of contextual factors is critical to our understanding of phenomena and to the understanding of falliballistic realism.

**Research Design**

The main focus of my research was to explore the teacher facilitator role during the implementation of the prevention initiative. In addition, my intention was to reflexively explore my experiences as a program administrator along with other participants to better understand the culture of the implementation of a prevention program.

This study utilized a grounded theory methodology (Charmaz, 2006; Glaser & Strauss, 1965, 1968; Strauss & Glaser, 1970). The collecting of data through the grounded theory method assisted me to develop theoretical analyses in this process. Charmaz (2006, p. 19) offers a new perspective to grounded theory and believes that neither data or theories are discovered through qualitative research, but rather the researcher interprets the reality around him or her, "...we are part of the world we study and the data we collect. We construct our grounded theories through our past and present involvements and interactions with people, perspectives, and research practices."

This methodology was deemed to be the most appropriate as the intention of this study was to further develop or expand some aspects of the theoretical framework on implementation of school-based emotion regulation programs (Schmidt Hanbidge, 2009) I generated from a review of the literature in a previous paper. The literature review is summarized in chapter 2 of this paper. The study adds to the current implementation literature by developing a set of ideas grounded in teacher facilitator, school principal,
and program administrator experiences in a school-based elementary prevention program. Conducting an explorative qualitative study was useful in this case to gain a deeper and detailed understanding about the phenomena and to gain a picture of the "lived experiences" of the teacher facilitator role in the prevention program.

This study was designed to incorporate two stages, both linked together, where stage 1 informed stage 2 of the study. The research questions and interview guides in the second stage of the study were developed as a result of the data analysis from the first stage interviews (see Appendices A – G for stage 2 Teacher Facilitator and Program Administrator Invitation Letters, Consent Forms, and Interview Guides). In stage 1 teacher facilitators and principals were interviewed to gain a deeper understanding about their experiences in the implementation process of the STEAM program (see Appendices H – L for Teacher Facilitator and Principal Invitation Letters, Consents and Interview Guides). The data collected in the first stage of this study informed the development process of the Integrated Program framework. Subsequently, the second stage of this study evolved from the findings in stage 1 of the research. The description of the findings in this study will focus mainly on the findings from the stage 2 interviews. For a visual description of the research process for this study, see the diagram, Figure 6. on page 89.

Data was collected in two separate stages. For the first stage of this study, the goal was to gain a better understanding, from the perspective of teacher facilitators (n=4) and school principals (n=4) for a total of 8 in-depth interviews, about why and how individual schools chose to implement the school-wide component of the emotion regulation program. Analysis of the first round of qualitative interviews yielded an understanding of what the participants understood to be barriers and bridges in implementing a school-
based emotion regulation prevention program. The initial round of interview questions was not informed by the framework of the Integrated Program model (IP). This means that first round of 8 study participants formed the groundwork to generate concepts and questions to be followed up in the next round of 16 interviews.

The data from the first round of 8 interviews were reviewed to aid in the development of the two research questions posed for the second round of interviews in this study. The findings were used to focus the second round of interview questions and probes with 16 additional participants about the practical and contextual factors associated with successfully implementing a school-based emotion regulation program. The participants from the first round of interviews were not included in the second round of questioning. Following the analysis of the second round of interviews, those first 8 interviews were re-analyzed with the aim to answer the two research questions posed for this study and to further generate theory.
The emphasis of my research for stage 2 was specifically on understanding teacher facilitator's perceptions and motivations. They are identified at the center of the Integrated Program framework. I made the decision to focus on exploring the experiences of the teacher facilitator to further our understanding of those who are the direct service providers of prevention initiatives and to make an effort to gain a deeper understanding of those who are the "champions" of these programs in schools. In the IP framework diagram, the center of the diagram emphasizes the roles of the parent or family, the student, teacher, and the facilitator and emphasizes their importance because they are in the middle of the IP diagram when considering implementation of a program. Although all these people carry critical roles in the IP framework, I felt it was important to understand program implementation from the teacher facilitator's perspective. I wanted to explore the Integrated Program framework through their perspective, but my aim was
to enhance the trustworthiness of the data by also exploring the role of teacher facilitators through the lens of principals and program facilitators. This interest links with the intention and desire described earlier, that the information in this study will assist community organizations and schools in their decision-making process to implement prevention initiatives in schools. Exploration of critical roles of the parent or family and student could form the basis of a follow-up study to refine the Integrated Program framework.

For this study, I investigated the Integrated Program framework through the participant interviews in relation to specific factors that were identified in the IP framework. There appeared to be some gaps in the model related to specific key program factors, for example, gaining a better understanding of the relevance of the social worker role in the prevention program. The key program factors identified in the model included training, supervision, resources, technical support and stakeholder roles. As well, key contextual factors, including political, cultural, economic and practice-based knowledge figure prominently in the framework, but also needed to be explored and understood further. Through this research study, my aim is to address the gap in the research literature that exists when it comes to formulating a holistic or ecological view of overall environmental factors that impact the quality of implementation of school-based prevention programming.

Prior to the involvement in this research study, my social worker role in the community was as a program administrator in the STEAM (Skills & Tools for Emotion Awareness & Management) program for a period of over 10 years. I was an employee of a community mental health organization. My personal experiences over the decade as a
program administrator certainly played an important role in choosing my topic for my doctoral research. Inevitably, a researcher's perspective will influence the research study considering that the social location of the researcher is unique to one person. This emic or insider position may have enriched my data analysis and study findings. My unique perspective may offer a more authentic standpoint when interacting with my study participants rather than an etic or outsider perspective. To understand the unique perspective the researcher brought to this study, I was interviewed and asked questions by a member of my dissertation committee, Dr. Anne Westhues about the program administrator's role from my perspective. This interview was audio-taped, transcribed, coded, and analyzed following completion of all coding and analysis from the other interviews. Themes from this interview have been included in the data analysis, particularly in the discussion of the evolutionary teacher facilitator roles.

Sample

The research methodology is qualitative and the study sample consisted of teacher facilitators, school principals (in both the Public and Roman Catholic school boards), and program administrators delivering an emotion regulation program, STEAM (program description in chapter 2, delivered in a mid-sized community in Southern Ontario. The study involved a total of twenty-four participants (N=24), including myself (See Study Participant Description Figure. 7 on page 104), of which sixteen participants were teacher facilitators from both school boards (n=16), 4 were school principals from both school boards (n=4), and four were program administrators from the community mental health organization (n=4). This number included the participants from both stages of the study. To preserve the study participant’s identity and their confidentiality, names have been
changed, pseudonyms were assigned and limited information is shared about each participant.

In Patton's view (1990), all types of sampling in qualitative research may be encompassed under the broad term of “purposeful sampling”. He states that "qualitative inquiry typically focuses in depth on relatively small samples, even single cases, selected purposefully" (p. 169). The type of purposeful sampling that was used in this research study is theoretical sampling. Theoretical sampling is the data collection process for theory generation (Glaser, 1992). Conducting theoretical sampling involves developing, elaborating on, and refining the categories that are emergent from the data. The pertinent categories that are discovered through theoretical sampling advance the data analysis and aid in the process of developing the emerging theory.

Charmaz (2006) cautions that theoretical sampling is not about the representation of a specific population or making the findings of a study generalizable. The theoretical sampling procedure used in this study garnered information from the first round of 8 interviews which directed me to the sample for the next 16 interviews. Charmaz (2006, pg 103) suggests that it may be useful to move back to the data collection process and then return to data analysis should new information come to light. From the first round of interviews, new information was shared in the interviews which helped focus my research for the second stage of the study. This included information about the categories that I decided to include in the Integrated Program model. Also, completing the first round of interviews helped me to clarify the selection criteria for potential study participants for the second round of interviews. Charmaz (2006, pg 104, 107) refers to this theoretical sampling process as “emergent” strategy that advances the analysis.
process and can be used in both early and later stages of the research process. This is consistent with the logic of grounded theory in that developing ideas shape the research questions and direct the research process.

Specific schools are selected each year to implement the STEAM program by both the Public and Catholic school boards. Some of the school board criteria for selection include that schools must have limited opportunities for extra support i.e. fewer Child and Youth Workers, school selection for a prevention initiative needs to rotate through the school board, or a school needs to be designated as a high-needs school by the school board. For the second round of interviews in this study, only schools who were delivering the STEAM program during the study were given invitations to participate in my study. Schools who were no longer delivering the program or who were on a wait list to receive the program were not invited to participate in the study. Based on my experiences during the first round of interviews, it was deemed that there was greater potential for the teacher facilitator to accurately recall their experiences if they were facilitating the program at the present time. I also learned that school principals would not agree to have their teacher facilitators take classroom time away to participate in a research study conducted by anyone outside the school board unless they were in the midst of a prevention program cycle. From my experiences during the first round of 8 interviews, it was found that teacher facilitators could offer much thicker and richer description of their roles to contribute to this exploratory study than principals. I found that school principals were often comfortable allowing teacher facilitators the autonomy to deliver the prevention program and suggested that I speak directly with the teacher facilitator to have my questions answered thoroughly.
Sample Recruitment Strategies

Both the Public and the Roman Catholic school systems' Research Ethics Board, in addition to the Wilfrid Laurier University Research Ethics Board and K-W Counselling Services approved the study prior to recruitment of the study participants. A signed consent form was obtained from teacher facilitators, principals and program administrators who indicated their understanding of the purpose of the study, how their data would be used and potential participants gave permission to participate in this study. Information letters about the study were shared first with all school principals who were delivering the STEAM program. They were asked to forward the information letter to their teacher facilitator. The information letters included the researcher's contact information as well as information about the study, and teacher facilitators were invited to contact me, the researcher to participate in the study. As there intentionally wasn't any follow up with the principal by myself through email, telephone contact or a school visit, voluntary participation by the teacher facilitator was assured. I deliberately chose not to inform principals whether their teacher facilitator elected to participate in the study. This additional step was taken to insure the privacy and confidentiality of the teacher facilitator participants. If study participants had chosen to withdraw prior to completion of the study, there would not have been any negative repercussions to them or their school however, all study participants completed the study. All interviews with teacher facilitators were held in pre-arranged school meeting rooms. Interviews with principals were held in their offices on school property. Interviews with program administrators were held in their office at the community mental health centre or at a university office.

The principals were invited to participate in the study through an invitation letter
provided to them via email correspondence. It was the principal's choice to follow up
with me either through email or a telephone call if they were interested in participating in
the research study. Four principals agreed to participate.

Three program administrators were invited to participate in the research study
through an email letter of invitation sent to them. There were only two program
administrators at the beginning of my study but a third administrator began her
employment shortly after the study began and agreed to participate in this study. I was the
fourth program administrator and was interviewed in a university office. None of the
study participants were compensated financially for their participation.

Data Collection

The study author conducted all interviews with study participants. Interviews
followed semi-structured interview guides that are found in Appendices A – L, pp. 185-
206. Standard interview probes, listed in the interview guides, were used to elicit
descriptive detail and to clarify information (Patton, 1990). Open-ended questions of
teacher facilitators and program administrators explored the training and supervisory
components of the program, facilitator characteristics, motivating factors of facilitators,
and contextual factors (such as cultural, political, economic, and practice knowledge) that
impacted the implementation of the program. Given time constraints and the focused
interview guide, interviews lasted between one hour and one-and-one-half hours. A short
break to stretch or get a glass of water was offered to the participants and a couple of
participants accepted the offer. A short follow-up interview for clarification purposes
wasn't necessary although it was offered to all study participants.
All interviews were audio-taped and transcribed. Handwritten notes of the interview have been kept for back-up purposes in case the recording device failed. Participant responses have been kept completely confidential. Data is reported in this report in summary form only whereas quotes were included only if the individual study participants cannot be identified. A number of quotations from the interviews have been included in this paper; however, pseudonyms were assigned to each quote and other identifying characteristics have been removed. A couple of study participants indicated they didn't want specific comments or information shared or quoted in a report or publication which they identified to the researcher during the interview. I was asked to turn off the recording device at one point in two of the interviews with teacher facilitators and one of the program administrators for confidentiality reasons. Data has been kept in a locked storage cabinet and files were assigned numerical codes. Numerically coded files on the computer have been password protected. Files will be kept for a period of 6 years or when all article publications are completed. Copies of the Interview Guides are included in the Appendices section of this paper (pp. 185-206).

**Data Analysis**

Qualitative data analysis techniques aim to identify meaning units or underlying patterns through a systematic process of coding and sorting textual data. After transcription of all interviews, I analyzed the transcripts line-by-line aided by the computer software program, QSR Nvivo and themes or concepts were identified as they emerged in the data (Charme, 2006; Ezzy, 2002). The codes were developed into "clusters of meaning" from the significant statements into themes. This represented a movement from the particular (line-by-line codes) to the general (patterns within those
codes). Similarly, the accounts of these themes which emerged represented a movement from the descriptive (e.g. summarizing what the study participant says, or does, in a series of codes) to the interpretative (making some attempt to identify what it all means).

Coding the data involved moving from the experience of each of the study participants to the concepts that may have been similar among experiences. Analyzing data through a constant comparative method allowed me to compare indicators (words) that were similar to one another and those that were different from one another from the interviews into categories or codes (Charmaz, 2006; Glaser & Strauss, 1967; Strauss & Corbin, 1998). I reviewed the data (e.g. interview transcriptions) and highlighted "significant statements," sentences, and quotes to provide an understanding of how the study participants experienced the phenomenon. Moustakas (1994) names this "horizontalization". The coding took place in stages, beginning with open coding, moving into axial coding, then into selective coding where I grouped the codes into themes (Strauss & Corbin, 1998).

For example, one of the significant statements made in an interview with a teacher facilitator when we discussed the group member selection criteria referred to "language challenges", where the teacher facilitator inferred that English was a second language for the group member. The statement that I deemed to be significant was "being attentive to student needs because it's important that the parents understand why the child has been involved. Either the settlement worker at the school or a friend or someone else who speaks English can translate some of the forms for them." During the data analysis, the open coding labels that I assigned to this significant statement quote were "interpreter" and "consent form challenges". These free nodes were stand alone without logistical
connections to other nodes and were not created with a hierarchical structure in mind. The next step in the coding process involved conversion of both these open codes along with similar type codes into tree node folders, or axial coding and I labeled this code "language diversity". The selective coding process included the grouping together of similar type words and significant codes which were converted into the theme of "cultural diversity". This theme was then connected with other contextual factors that had emerged from the data. When the theme of "cultural diversity" was viewed through the Integrated Program model, it seemed a natural fit and was linked as one of the "cultural factors" that were important to consider during implementation of a school-based program.

After completing these coding procedures, I re-analyzed both the first and second round of twenty-four interview transcripts, specifically looking to determine whether the categories from the Integrated Program model were discussed in the interviews. This constant comparative method (Charmaz, 2006) allowed me to construct clear and meaningful categories and to clarify the relationships between categories. This re-analysis of the data was critical to the research process to understand the relationships between the categories and to determine whether the initial concepts developed for the IP model were still a good fit for the model.

One purpose of this grounded theory study is to further understand and explain multilevel ecological, individual, school, community, and cross-system factors viewed through the framework of the IP framework. I chose to focus my study on the program implementation experiences of the teacher facilitators. Using the STEAM program as an experiential case example, it is hoped that a theory can be generated to guide practice for preventive emotion regulation program implementation in elementary schools by
exploring the contextual and motivational factors inherent in the implementation process. Using the interviews with teacher facilitators, school principals and program administrators generated a deeper understanding of the motivating and contextual factors outlined in the Integration Program framework that shape the program implementation processes.

**Enhancing Validity and Trustworthiness**

Considering important criteria such as trustworthiness and credibility need to be part of any qualitative study. Trustworthiness refers to whether another researcher studying the same material would find similar results or as Anastas (1999, p 415) refers to this “reproducibility of observations or results under the same or similar conditions”.

To further enhance trustworthiness and credibility of the data, multiple interviews were conducted to gain various perspectives (with teacher facilitators, school principals, and program administrators) and to establish triangulation. The triangulation of data collection in theoretical sampling is extremely beneficial for theory development (Strauss & Corbin, 1998). Participants were invited to review and comment on the transcribed interview prior to completion of the written report and a copy of their transcript was emailed to each participant. Interviewees confirmed that their transcript was correct. In three instances, several minor changes to spelling occurred. This step was taken to enhance the trustworthiness of the data collection process (Lincoln & Guba, 1985; Strauss & Corbin, 1998).

A journal notebook (Tutty, Rothery, & Grinnel, 1996), also called field notes (Patton, 2002) or memos (Charmaz, 2006) was kept during the interview process where observations and thoughts were recorded about the interview process. This process
created an audit trail. Field notes or memos are an opportunity to record what researchers see and hear outside the immediate context of the interview and thoughts that may be relevant for the analytical stage of qualitative research (Charmaz, 2006; Patton, 2002; Ritchie & Lewis, 2003; Talty et al., 1996). Keeping field notes and memos was a useful strategy which helped organize my thoughts during the interview process over the months of the analysis process. Keeping memos also allowed me to keep track of my thoughts and keep the "voices" of my study participants in the foreground and stay grounded in the data (Strauss & Corbin, 1998). I am accustomed to keeping notes in clinical interviews and this gave me confidence to recall and not miss any important information and to summarize my observations. In addition, field notes and memos made during the interviews supplemented the audiotapes in case of tape recorder malfunctions, which fortunately did not occur.

In qualitative research, negative case analysis enhances rigor and is used for data verification (Padgett, 1998; Strauss & Corbin, 1990). As part of the re-analysis of every interview transcript, after I had analyzed the transcripts the second time, I wanted to see whether all the categories and theme and the properties therein were still applicable. After this analysis, the themes and codes were deemed to be relevant for this study.
CHAPTER 4: FINDINGS

A number of important findings surfaced during my qualitative analysis of the semi-structured interviews with teacher facilitators, program administrators and principals and as a result, help to better understand the implementation process. These findings present a basis for understanding the experiences and practices of the implementation and dissemination of an emotion regulation prevention program by teacher facilitators in a mid-sized community of the Region of Waterloo in southern Ontario. These findings help address the two research questions posed by the author of this study:

1. How does training, supervision, stakeholder support, resources and technical support factors enhance implementing an emotion regulation prevention program with fidelity?

2. How do cultural, political, economic, and practice-based contextual and motivating factors influence teacher facilitators and program administrators in elementary schools in implementing an emotion regulation prevention program with fidelity?

This qualitative exploratory study I designed and initiated is intended to build upon, further develop, and fine tune the Integrated Program framework developed in my previous work. My findings are grounded in the experiences of the teacher facilitators, school principals, and the prevention program administrators. The influence of the current program implementation factors will be incorporated into the Integrated Program framework in the Findings chapter.
Study Participant Characteristics

The study sample included a total of 24 (N=24) participants, comprised of 4 program administrators, 16 teacher facilitators, and 4 principals which includes the participants from both stages 1 and 2 of the study. The Study Participant Description Figure 7. on page 103 lists the descriptors of the 24 study participants. The teacher facilitator study participants were selected from both the Public and the Roman Catholic school systems. Eight of the teacher facilitator study participants were employed by the Public board whereas the other 8 teacher facilitators were employed by the Catholic school board. The 16 teacher facilitator's educational credentials included the title of (nine) Educational Assistants or (seven) Child and Youth Workers. Two Public school board principals and 2 Catholic school board principals participated in the first round of interviews for this study. Three principals were female and one was a male. The four female program administrators were Master of Social Work employees of a mental health counselling community centre and managed the prevention program. Their program administrator experience ranged from less than one year to over 10 years of experience. To capture diversity of professional experience, 12 teacher facilitators who responded to the interview request had at least 3 years of group facilitation experience in the prevention program. The other 4 teacher facilitators were new program facilitators to the role in their first year as a teacher facilitator. Four teacher facilitators had a decade or more experience as program facilitators. Fourteen teacher facilitators were female and only two were male. This was representative of the typical male/female ratio in the teacher facilitator role in the STEAM prevention program.
## Figure 7 - Study Participant Description

<table>
<thead>
<tr>
<th>Participant Pseudonym</th>
<th>Role</th>
<th>Years of Professional Experience</th>
<th>Years of STEAM Experience</th>
<th>School Board</th>
<th>School Grades</th>
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<td>Lidia</td>
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<tr>
<td>Joan</td>
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<td>5+</td>
<td>A</td>
<td>JK-6</td>
</tr>
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<td>A</td>
<td>JK-6</td>
</tr>
<tr>
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<td>10+</td>
<td>B</td>
<td>JK-8</td>
</tr>
<tr>
<td>Mark</td>
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<td>2+</td>
<td>A</td>
<td>JK-6</td>
</tr>
<tr>
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<td>10+</td>
<td>B</td>
<td>JK-8</td>
</tr>
<tr>
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<td>B</td>
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<tr>
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<td>B</td>
<td>JK-8</td>
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<tr>
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<td>1</td>
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</tr>
<tr>
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</tr>
<tr>
<td>Ryan</td>
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<td>A</td>
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Differences: Linkages & Fidelity, Interruptions & Adaptations

The concepts of "linkages" and "interruptions" in this paper are terms that have originally been posited by Ristock and Pennell (1996) and have been adapted to be applicable to this qualitative data analysis. These concepts are applied to view the various contextual factors that influence quality program implementation. Linkages, in the context of my paper, enable the initiation of connections between contextual factors to enhance the program implementation process, whereas interruptions, in this context, refer to the barriers that may deter from high quality program implementation. Since interruptions may affect high quality program implementation, they can also be interpreted as an opportunity to pause and reflect on the impasse. They are cause to
consider current practices and determine whether any alterations to the program dissemination process needs to be made. If changes to the program because of contextual factors could improve and augment program dissemination, then careful consideration should be given to the potential benefits to incorporating these reflections into each program component.

An example of an interruption in the current study is related to assertive communication (one of the program activities is focused on teaching students assertive communication). In the North American context, assertive communication is usually accompanied by direct eye contact when speaking, although in some other world cultures, direct eye contact may be interpreted to be an aggressive gesture in the communication process. As teacher facilitators implement the program segment instructing students to use assertive communication strategies, a helpful interruption during the lesson planning process would be to identify cultural norms and include alternate cultural behaviours. Although this example may not apply in each individual group, pausing to reflect on the group composition in the context of the group activity may alert teacher facilitators to take time to consider possible adaptations.

Another example of an interruption that could be a threat to the fidelity of the program would be if funding for a specific group was decreased and a decision was made to decrease the number of group sessions to reflect the changed funding structure. This decrease in the number of sessions would negatively affect the ability of the teacher facilitators to cover the content of the program curriculum and may impact the ability to create a supportive relationship between teacher facilitator and student and would impact the post program evaluation procedures.
The ongoing debate about the merits of both fidelity and adaptation was highlighted during my analysis of the interview data. On the surface it seemed that linkages and interruptions may limit how a program can be implemented with fidelity. However, I recommend that linkages and interruptions be considered as an opportunity to pause and critically reflect on how a program can be relevant in distinct communities. Chen et al. (2008, p 476) suggest that the concepts of "program fidelity and adaptation may not be competitors but serve to complement each other", especially in community-based programs. From my analysis of the interview data, findings can be categorized into several themes which can impact the fidelity of the program and will be discussed further in this paper.

**Implementation Factors**

From my analysis of the interview data, it was clear that a number of important factors evolved into themes for the participants of this study which represented important issues and are highlighted in the findings for this paper. Implementation factors that warrant more detailed discussion in this chapter include: program resources, key stakeholder support, quality training, technical support and practice knowledge. It is useful to look at how the linkages and interruptions enhanced program implementation with fidelity when incorporating critical contextual factors.

Factors that the interviewees acknowledged were important to the successful implementation of an innovation were these key program elements; 1) Resources which included having time for group facilitation and a private space that accommodated group meetings. When resources were scarce or unavailable, it disrupted the implementation
process; 2) Key Stakeholder Support from principals and the school board to implement the prevention initiative was found to be another common theme and was considered to be an important linkage in the implementation process. When support was limited or unavailable, it became difficult to motivate teacher facilitators and schools to fully implement the program; 3) Quality training with sufficient support was recognized as another critical linkage. If this component was inadequate, it was found to be difficult to implement the program with fidelity. Each of these factors was critical to the teacher facilitators' implementation of the emotional regulation prevention program; 4) Technical support for teacher facilitators included having a standardized program manual, both in paper and in CD format; a program kit containing program supplies, such as videos, CD, art and craft supplies and activity instructions was critical for program implementation. Without the technical items, facilitation of the program would be almost impossible.

Specific 'interruptions' to the process that were consistently of concern to both teacher facilitators and program administrators were inexperience, a new teacher facilitator participating in the first year of implementation and needing to gain "practice knowledge" and facilitation skills over time. Principals, program administrators and teacher facilitators all spoke about the interruptions of "growing pains" as they developed their practice knowledge when a prevention initiative was being established in a school. Figure 8. on page 108 summarizes the linkages and interruptions in the implementation process that evolved as themes from my interpretation of the research data.
**Figure 8 - Linkages and Interruptions**

<table>
<thead>
<tr>
<th>LINKAGES THAT AID IMPLEMENTATION</th>
<th>INTERRUPTIONS THAT CHALLENGE IMPLEMENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>-sufficient time</td>
<td>-lack of planning time</td>
</tr>
<tr>
<td>-adequate space</td>
<td>-shared space</td>
</tr>
<tr>
<td>-strong school principal leadership</td>
<td>-stakeholder unavailability</td>
</tr>
<tr>
<td>-school board support, open communication</td>
<td>-operate program in isolation, lack of “buy-in”</td>
</tr>
<tr>
<td>-quality training</td>
<td>-lack of or limited training</td>
</tr>
<tr>
<td>-skilled supervision</td>
<td>-lack of or limited supervision</td>
</tr>
<tr>
<td>-specific group selection criteria</td>
<td>-referrals only based on need</td>
</tr>
<tr>
<td>-practice knowledge</td>
<td>-facilitator inexperience, lack of confidence</td>
</tr>
<tr>
<td>-standardized program manuals &amp; resource kits</td>
<td>-lack of rigor in delivery of program</td>
</tr>
<tr>
<td>-differentiation (i.e. cultural, linguistic)</td>
<td>-adaptation (i.e. variances in key program activities)</td>
</tr>
<tr>
<td>-ongoing funding</td>
<td>- difficult economic climate</td>
</tr>
<tr>
<td>-collaborative team</td>
<td>- isolated program sites &amp; facilitators</td>
</tr>
<tr>
<td>-evidence based practice</td>
<td>- ad hoc evaluation practices</td>
</tr>
</tbody>
</table>

**Resources**

Significant limitations of time and/or space, or interruptions at the organizational level and personal level influenced the quality of program implementation. These limitations led to varying degrees of program implementation which limited the fidelity and caused interruptions to the program in each case. A number of teacher facilitators expressed specific concerns about the lack of space in their building to run the program. It was a recurring theme that finding a private room within the school building to locate the groups was difficult due to space limitations. Finding spaces within the groups was also a concern expressed by several interviewees. A waiting list for students was created
to deal with the many students willing but unable to participate in the program. Teacher facilitator Joan commented, "There is always a waiting list. There are more students that want to be in it than we can accommodate".

It is crucial to ensure that the teacher facilitators had sufficient time allocated for them to implement the program. Teacher facilitator Cynthia noted: "...it's just a lot of preparation to do and photocopying and record keeping and that sort of thing...we've been cut back in EA support centrally, so it's really tough to free time up". Jasmine, a program administrator, suggested: "time is a huge resource in terms of delivery of the program, time for training, time for planning, time to share information with other teachers in the school, time during staff meetings. Planning and preparation is one of the areas that people who don't facilitate groups aren't aware of how much time it takes. If you have a one hour group you need more than one hour to prepare for that one hour session and often that's surprising to people." Having time to prepare, deliver, and debrief with others serves to maintain and enhance fidelity to the facilitator training process and to adhere to the intended outcomes of the program.

Mary was concerned that others within the school board didn't have a clear picture of the importance of allocating adequate teacher facilitator time in order to ensure that time was used as a linkage to the fidelity of the program: "I don't know they [school board administrators] have any idea of just because they are not out there. They don't see all the prep[aration] that goes into it and the amount of time, energy, and resources. You can talk about it but actually seeing in play is very different. I don't usually run any other group, because group just takes so much time compared to individual work. She [principal] kinda looked surprised but now that she's seen me in action and has seen a lot
of the stuff I'm doing in STEAM she's like, I understand!"

Key Stakeholder Support

The individual and collective responses of stakeholders (students, principals, parents, teacher facilitators, and school board) have great influence on the successful outcome of a program. Other key stakeholders in the program are the community mental health agency and families whose children participate in the program. Attending to the needs of the key stakeholders is important because they need to be involved in the program from the beginning. Many difficulties or interruptions emerge during the implementation process because elements of stakeholder needs are overlooked or taken for granted.

My observations from my perspective in my role as program administrator clearly reinforced that teacher facilitators should feel supported and appreciated for their efforts in launching the program each year and I could see the positive impacts of the ongoing support and appreciation.

Principals

In their interviews, teacher facilitators emphasized the crucial role of the one particular stakeholder, the school principal, in supporting their role in the implementation of the program. School principals can support teacher facilitators by providing them with access to school information and recognition of the importance of their work in the prevention program. Teacher facilitator, Joan said: "He [principal] wanted children to be better able to communicate, more resilient, and better able to solve problems on the yard", and to support the school "...[principal's] role is basically to provide support and encouragement to staff and to educate staff and members of school council". One
principal became a role model to teacher facilitator Joan who stated that: "...the principal being an advocate of STEAM by using it him or herself is important". The teacher facilitators generally agreed that, without the active support of the principals, the program would have a difficult time establishing legitimacy in the school and acceptance from the students: "...it's gotta be something that the principal is also passionate about...and believe this is a worthwhile program."

Teacher facilitators continually stressed how much they valued the feedback and affirmation that their principals gave them: "...for us it's a matter of daily communication when STEAM is going on". One teacher facilitator, Nicole, noted that the support is critical: "the principal has got to support it no matter what. For it to work, I'm [Principal Wendy] buying in completely and I'm going to back her up". Principals also valued verbal and email support from more experienced STEAM principals in other schools when implementing the program. As principal Wendy pointed out: "We were able to make some phone calls back and forth or see each other at meetings and say, 'how are things going'?" This is an important example of a linkage that serves to enhance the program's implementation and can contribute to its fidelity.

Principal Stacy suggested that it was challenging for principals to provide support to the teacher facilitator in the implementation process if the principal didn't completely understand the underpinnings of the prevention program. This qualifies as an interruption to the fidelity of the program if principals are unable to fully support teacher facilitators in the implementation process. Stacey recommended that a principal's manual or handbook be developed to assist principals in the process of the first year of program implementation, "If there was an overview piece...it might give them a more clearly
stated understanding of what would be expected of them”.

Rosa, a teacher facilitator, recognized the important linkage that community agencies and social workers have in a school: "we have different programs and teachers have their own way of teaching, but we need to bring social work into the teaching class...it needs to be a partnership. My experience has been that for it to be effective, I need to work with the social workers, the people who come in from outside from the [community mental health agency], they also work at it together." From another perspective, Cailey (teacher facilitator) observed: "I think the more the school can see we're using outside agencies makes it less scary for them. So that's why I like to have my community resources board on the school hallway wall and it should show all the different resources in our community area so the parents can see the school recognizes these and encourages families to go for support. Without community linkages and partnerships, valuable prevention programs would be at risk of not being delivered in our schools." Community support, or the lack thereof, can serve as a linkage or an interruption that may impact program fidelity.

School board

The school boards are seeing the benefits of the prevention program based on what administrators (principals) are saying, "they [school board personnel] are actually seeing and believing in the program", and "there's been lots of central support so I've been pleased". This support is a strong linkage to enhance dissemination of the program within the school board. School principals rely on school board support: "I don't know how we'd make a run without it". However one principal, Joan, indicated she had
received less positive support from the Board: "...the schools seemed to be operating in isolation a bit". This is an interruption faced by individual schools when they lack the support of the school board. Feedback from some teacher facilitators indicated that they felt isolated because confidentiality protocols required them to operate the prevention program behind closed doors and only invited student participants were included in the instructional sessions. As school board funding and support is critical, it was suggested that school board personnel be invited to observe some sessions "in action" to facilitate a deeper understanding of the program.

**Teachers**

It was noted that program implementation can be interrupted if other teachers and staff don't "buy-in" to the benefit of a prevention program in the school. Some classroom teachers see the groups as a way of getting a difficult child out of class and "getting a break". As reported by teacher facilitators, some classroom teachers saw this program as an "add-on", which is not directly part of teaching the required school curriculum and they were reluctant to recognize that this was an important time for those students involved: "staff in both [schools] were reluctant...that was the biggest challenge was trying to get them [teachers] to open their mind to see the benefits". However, several teacher facilitators reported the dissemination of materials to teachers through memos or staff meetings regarding the program were useful in keeping teachers informed and engaged.

In my interviews, teacher facilitators alluded to the ongoing debate in the education field regarding the place of prevention initiatives in academic settings such as schools and the extent to which any teacher designates time in a busy curriculum to the
social and emotional learning of students. Teacher facilitators were able to create linkages with others by sharing program information with staff. Teacher facilitators also encouraged classroom teachers to practice key prevention program activities with their entire class. In some cases, teacher facilitators and classroom teachers collaborated with each other to share key program activities.

**Training**

It is critical that all teacher facilitators be fully trained by the program administrators to understand the purpose, function, and responsibilities of their role. The teacher facilitator's role includes leading the prevention program in small groups, participating in school-wide interventions, and functioning in the role of the community liaison person (see a description about the teacher facilitator training in the STEAM program overview section in chapter 2). Ryan, a teacher facilitator stated: "The training was incredibly helpful the first time around, because I was brand new to the program, the school was brand new to the program, there wasn't anybody to really reference." Pam reported that following the list of tasks on the prescribed schedule was a linkage to program implementation: "Following a month to month schedule for implementation assists with deliberate and efficient execution." Sharing of practice knowledge between social worker, intern and teacher facilitator groups was encouraged by program administrators during the prevention program training sessions, especially by experienced teacher facilitators.

Teacher facilitators and program administrators alike addressed the importance of relevant, high quality training to ensure a strong knowledge base to understand the purpose of the program, the program theory and practices, and all components of the
curriculum. This training serves as an important linkage to enhance the fidelity of the delivery of the program. Facilitating a group work prevention program often requires diverse teaching and group facilitation skills that differ from individual one-on-one student work skills which are commonly used by teacher facilitators.

Madeline, one program administrator, highlighted the different purposes of the training sessions: "the first training is the information or content sharing, and then the other two trainings are facilitator's opportunity to talk about how things are going. I really believe that bringing everybody together to be able to share, it's an adult education model of people helping each other." Cailey, a teacher facilitator, found that the training provided valuable support and guidance for successful implementation of the program. Important information the various program facilitators provide each other about the theory base of the program and skills required to facilitate the groups that are created during the training process is an important link to maintain fidelity of the program. Cailey recommended: "...attend the training. I was really overwhelmed before I went. I didn't realize we were going to get a box of stuff. I was at the training and going, oh my God! Who makes that craft now....one of the things I didn't quite understand was how it was going to all come together. After I attended that first training, then I was good."

Madeline, one of the program administrators, discussed the relevance of training: "we emphasize key program concepts and make sure children and parents are familiar with them and that they have practice using them. We make sure we do the same with the teacher facilitators and model the concepts, teach them and role play them. We have the facilitators work together and teach each other to make sure they are all very familiar with those key concepts. We insist that all the facilitators attend the training before they
can begin the program." In the structured training sessions, program administrators create linkages between teacher facilitators by having facilitators attend group meetings and meet with other social work facilitators in order to share information and problem solve with one another.

**Technical Support**

Standardized manuals for teacher facilitators and home room teachers are available to assist with the dissemination process. Nicole, a teacher facilitator stated that "...a teacher's handbook is available to continue the program in class, something very short, not taking up a lot of their time, a 10 minute activity related to what was being taught that week". Parents also receive a standardized Parent/Guardian Manual to transfer learning from schools to the home environment. Program resource kits were discussed as being "helpful" by teacher facilitators and are considered to be a linkage to delivery of the program with fidelity as all schools received the identical resource kit with the same program activities, including a number of items, such as relaxation CD's, communication skills books, play dough, an erupting volcano, paper colouring activities and t-shirts bearing the program logo.

**Practice knowledge**

Another theme that emerged from the interviews was that it took time, training and experience for teacher facilitators to develop confidence and competence in their role and gaining practice experience to develop these skills was developed by what I refer to as "practice knowledge". One of the problems that typically occurred during the development phase of practice knowledge was logistical considerations that hampered the development and delivery of services in the first year of the program in schools. These
logistical considerations occasionally caused interruptions to the implementation process. For example, it seemed to be difficult for first-time teacher facilitators to keep the lines of communication open with other teachers in the school. To keep lines of communication open, it required weekly classroom teacher memo updates and regular conversations with classroom teachers to share information about students. If this process wasn't deliberate and ongoing, it appeared to create a block in the communication between classroom teachers and teacher facilitators which resulted in reduced or limited support from teachers for students who were enrolled in the prevention program. With experience being a teacher facilitator and additional "practice knowledge", they understood how important this feature was to enhance the likelihood of a successful implementation process. Mark, a teacher facilitator, reported that: "One of the biggest challenges that I have is the paperwork involved. That was one of the mistakes I made the first time, was delaying that too long in terms of teacher referrals, consents, referral lists, and teacher conversations". An awareness of the challenges, especially first year challenges that program interruptions can cause may be minimized or eliminated altogether as teacher facilitators gain experience and develop their practice knowledge. Discussions about program challenges are encouraged during teacher facilitator training and supervision sessions.

There appears to be a frequently repeated step in the process of gaining experience which leads to skill development and practice knowledge and aids the facilitators in developing competence and confidence over time. This process is described in detail in the evolution of the teacher facilitator role model diagram described later in this chapter.
In the first year there are 'growing pains' which represent interruptions to the integrity of the program and potentially threaten the fidelity of program implementation. Teacher facilitator Joan, reported: "...we initially saw some growing pains in the first year, and we're not seeing them this year...during the STEAM sessions, some emotions might be opened up and kids would sometimes come back from STEAM in a pretty emotionally raw state and might explode. I know that staff was struggling with that". Over time as group facilitation skills are enhanced and teacher facilitators are able to contain emotional outbursts and pace their group sessions to ensure that students feel safe and are emotionally contained before returning to class.

Christa, a teacher facilitator, shared: "I have to be honest, when they first placed that huge red binder in my hand. I thought: 'Oh my God', I panicked! This was the first group work that I have ever done beyond the classroom working with students academically. This was a huge responsibility! I did not want to fail the kids or let my principal down." The teacher facilitator's overwhelming fears could well disrupt the implementation process. Typically, newly appointed teacher facilitators are matched with experienced social work facilitators by the program administrators to help mitigate some of the first year challenges.

Therefore, a number of important themes emerged from the data analysis to consider when implementing a prevention initiative. These themes aid in answering the first research question that was posed in this study to try and understand how training, supervision, stakeholder support, resources and technical support factors enhance implementing an emotion regulation prevention program with fidelity.

Several elements were considered to be linkages to program implementation
whereas others were found to create interruptions to the implementation process. Important elements to the successful implementation of an innovation were these key program elements; sufficient program resources, key stakeholder support, quality training, technical support (such as curriculum manuals) and facilitator practice knowledge. Specific 'interruptions' in the implementation process that were a theme in the data with both teacher facilitators and program administrators was teacher facilitator inexperience. This interruption threatened the fidelity of the program if teacher facilitators didn’t implement the program according to the manual or missed collection of evaluation data for the program.

**Contextual Factors**

The characteristics of the environment (contextual factors) are related to effective delivery of prevention initiatives. As discussed previously, the physical and the structural settings of the community and the resources available to the program in the community are critical contextual factors to consider during the planning and implementation process. These include: training, supervision, technical support, and key stakeholder support and practice knowledge.

Next, by expanding the scope of prevention program implementation with a broader lens of the ecological social context, we can explore another component of the Integrated Program framework. This ecological social context also impacts implementation of the prevention initiative. This section aims to address the second research question that was posed for this study: How do cultural, political, economic, and practice-based contextual and motivating factors influence teacher facilitators and program administrators in elementary schools in implementing an emotion regulation
Questions that were posed to the study participants incorporated this broader scope and themes that arose from the first analysis of the data included these elements: 1) the cultural context (literacy, language, roles); 2) political atmosphere and motivation; 3) the economic context (financing, funding [stability and level of funding]); 4) the evidence base of knowledge that is available to the community and program, and; 5) creating a differentiated program that is specific and relevant for individual schools. Gaining a deeper understanding of these various factors helped to clarify the implementation processes and enhances the opportunity for the “best fit” across various implementation sites.

**Cultural factors**

Study participants highlighted the importance of embedding cultural norms into the program curriculum to reflect the cultural diversity across schools and the multiple languages that are spoken in schools. Including this cultural and linguistic awareness demonstrates the broader contextual environment in which children develop (Macaulay et al., 1998). Creating a linkage between the cultural factors and the conceptual base of the program is an important factor that assists both program administrators and teacher facilitators. Rosa (teacher facilitator) explains: "We create cultural pride here in STEAM and at school; it's to bring it to the kids' lives. The kids can really see the cultural pride and feel it and incorporate the program and the skills into their own lives, their own issues, their own likes and dislikes. The World Cup, because a lot of people were voting for Portugal so that became a way in to reach the kids...It's all learning and linking lessons as you go through whatever is happening in the community and the world." At
another school, Mary shared how they incorporated cultural diversity into their group: "In one STEAM group, we talked about how people should bring in something from their culture... the kids brought in different types of food, which was kind of neat."

It is important to be aware of potential interruptions to the program that can create difficulties for students, facilitators, and schools as well as impacting the fidelity of the program. Teacher facilitators discussed the challenges they experienced in engaging students who speak English as a second language (ESL). Christa, one teacher facilitator observed that: "...there's probably going to be a few students that I'm going to have to get translators for. And that might be tough, as far as getting them [students] to the group."

Consideration for the need for translation of the material in the program, including both the children's material and the parent/guardian handbook can mitigate this disruption and may be an opportunity to adapt the program to reach a wider cultural audience.

Respecting cultural diversity related to teaching the program material may require some accommodation or adaptation to various cultural aspects and thus may encourage linkages with cultural community resources to adhere to the intention of the program. One teacher facilitator spoke of the challenges she experienced in the problem solving session content: "...some of my students are taught from an early age that you solve conflict with your hands. That's a very hard thing to get around especially when you come from a country where there is a lot of war and a lot of violence, whether they have witnessed it first hand or whether they have only hear it via their parent, they come with the same idea. So it's been very difficult to reach some of my students." Additional support from program administrators or cultural community resources may be necessary for specific schools that identify complex issues to ensure that linkages embrace cultural
factors are created and these unique linkages also aid in maintaining fidelity to the program.

**Political factors**

Political factors, policies, and world issues directly affect school communities and prevention programs. These political factors can also be viewed as factors that may create strong linkages to communities or they can disrupt progress. Mark, a teacher facilitator noted positive developments in provincial politics affected school boards and preventive programs by creating linkages between the two: "they've [government] come up with a new character development initiative which is mandated by the government so this is positive...on the right track. They're understanding that this person [student] is a whole person. It's kind of exciting to see that." Several study participants corroborated this when seeing the impact that new educational policies were having on their community, including the Safe Schools Policy, Transformation, and Character Education. They saw that these policies increased the demand for prevention initiatives including the prevention program in this research study. Mark continued: "That's been positive, because STEAM is a prevention program." It seems that the recent policies by the government support further dissemination of the STEAM program. Recently in Ontario, a shift towards a holistic orientation with both education and children is occurring which creates opportunities for more linkages between government, schools, community organizations.

**Economic factors**

Economic factors play a significant role in the overall viability of a program, including the implementation and sustainability of a program. With any cuts from
funding bodies or cuts to financial grants, there is a risk that program fidelity may be interrupted due to the lack of financial resources. With the recent economic downturn in North America and in Ontario, greater stressor have been placed on locating funding sources and the ability for funding sources to share financial resources with the community have been decreased.

Both program administrators and teacher facilitators recognized the current difficult economic climate presented some interruptions to the implementation of the prevention program. Bonita, a teacher facilitator commented: "We've been in a recession now...because we had longer term funding...it didn't seem to impact us right away but now coming out of the recession and some of those [financial]commitments are ending, it's a hard time to be tapping people for donations, especially significant ones. It's a really tough time! Everybody's seeing a decline in donations in non-profits...the economic climate definitely dictates how much we can offer to the schools." Madeline, a program administrator, reiterated those thoughts: "we certainly saw a significant impact on the program in terms of being able to access funding for the program. [Charitable] foundations were just not able to provide the same level because many foundations did not provide funding to anyone." Kelly, a teacher facilitator, summed up the concerns by stating: "No money, no program. Poorer schools suffer."

As well, a number of study participants noted that job loss and unemployment affected students, families, and community resources which added to the interruptions when implementing the program. Student participants in these situations may be unable or unwilling to talk about communication styles when they are worried where they will live or if they are hungry. These students are often the ones whose attendance in school
and in the prevention program is marginal when they are focused on having their basic needs met, like food, clothing or shelter. Susan (teacher facilitator) shared: "there's a lot of unemployed or not working [parents] due to health issues or people moving around from school to school." Cailey (teacher facilitator) found the economic challenges frustrating: "because sometimes kids don't have shoes. Their shoes are falling apart. If we look at [Maslow's] hierarchy of needs that their basic needs aren't being met, they can't integrate the emotion management information." Mark (teacher facilitator) was surprised: "I had never heard so many kids come and say my dad lost his job today...we had one teacher who had meetings every day with their students to check in and it was something new every day. Someone was getting downsized and kids and families were struggling and that was really affecting how the kids were feeling". Mary summed it up by stating: "Whatever happens at home ends up coming to school and then, whatever happens at school ends up going home. It's just that everybody feels it." This could be an instance where there is an interruption to the program if the group conversations continually focus on how to meet basic physical needs and stray from the actual lesson plans outlined in the teacher facilitator manual. Program administrator may be able to assist teacher facilitators in reflecting on and processing these types of situations.

Evidence-base

Teacher facilitators spoke about the necessity and importance of having an evidence-based program. The prevention initiative in this study is structured to ensure that the key program components link with the theoretical concepts of the program. As part of the facilitator training, program administrators noted that they, "...make an effort to communicate very clearly to train people. By the end of the training, teacher
facilitators have knowledge about the key theoretical concepts of the program. Facilitators take those key theoretical pieces into the school and they can adapt program exercises depending on the school environment but those key pieces are still very clearly seen throughout the program."

The conceptual foundation of the program includes a strong theoretical base with an ecological perspective (Bronfenbrenner, 1979). The theory base of the program includes cognitive behavioural therapy (CBT) constructs (Beck, 1975), emotion regulation theory (Cole & Cole, 1996; Thompson, 1994), and (SEL) social and emotional learning theory (Elias et al., 1997; McNeely, Nonnemaker, & Blum, 2002; Osterman, 2000). Having knowledge of these theoretical constructs and the impact they have on the program and, understanding how to include these in the implementation process is critical when developing teacher facilitator practice knowledge through training and experience.

Building an evidence base through the evaluation process is an important step in the dissemination process and helps develop sustainability of the program, which falls under the role of the program administrator. Jasmine, a program administrator reported that: "the evaluation component is one area that is critical to the success of the program." Teacher facilitator, Mark observed: "I find that it's really helpful when you understand the background of the STEAM program. Personally, I find it kind of gives you strength when you know what the purpose of STEAM is, and [understand] the research behind it, the statistics and it's measurable. A lot of programs are great, but they don't measure the processes or the outcomes. You can share that information with others and it validates that what you've been doing has an impact." Program administrator Madeline supported this view, commenting: "...our research is so important to the success of the program. We
have evidence of that over and over from our funders, from partners, from program participants, and from the school boards...The program fits well with the mandate of the Ministry of Education... it's the evidence base that has great value to the school board and we heard that from the [school board] Superintendent."

**Group member selection**

Development of the program includes clear criteria to nominate children who could benefit from participation in the program. Ensuring the composition of students is balanced (i.e. inclusion of both externalizing and internalizing behaviours, equal male/female ratio) enhances the likelihood of creating a successful group and is another aspect that creates a linkage to the conceptual base of the program. The program curriculum and staff training manual clearly articulate the criteria for student group member selection. Teacher facilitator, Lidia reported: "...probably in the first year, we had “exploding high flyers” students [externalized behavior], but last year we had a really good balance of kids who had different emotion management concerns and not just the ones who explode in anger". Guidelines in the facilitator training manual recommend selection criteria to consider when composing the mix of students for each group. Including children as program candidates who often "stuff" feelings are children who will benefit from the program activities, as well as selecting those students labeled as "exploders". By including both types of student behaviour creates a balanced group of students who can benefit from one another during the group experience. Teacher facilitator, Susan suggested: "choosing a balanced mix of kids for the best fit. You have to go through a few channels to find the students for the best fit in the selection process, like special-ed[ucation], and maybe ESL, and the principal, and talk to the teachers
beforehand." Pam, teacher facilitator, also suggested that it was important to educate the teachers about the type of students that are appropriate to create a successful group. Teachers typically think that the 'high-needs acting out' kids should only go to the group, but once they realize it's a variety of behaviours that can benefit, including shy kids: "...they start to think a little broader and teachers can be more helpful in the selection process". The group member selection process is critical to the success of each group in a school.

In my personal experience and as discussed in the interview, many teacher facilitators believe that every student would benefit from participation in the program. This may be the case; however, based on my decade of program administrator experience assisting teacher facilitators in the group selection process, I understand (as do the other program administrators) that creating of a well-balanced group with a variety of styles of behaviour is a necessary element of creating successful group outcomes. Teacher facilitator Mark shared: "our strategy was to choose kids who were known for being explosive and then surrounding them with kids that would really benefit. They were stronger kids emotionally but had struggles at home, or they had a death of a parent and they were grieving. We chose a balance of different students. I would tell new [program] facilitators that [group member] selection is so important". To build the evidence base of a program over time, it is critical to understand what the current best practices are that may be available to schools delivering community programs.

**Differentiated program**

A notable theme I found in this study was that many of the interviewees, including principals, teacher facilitators and program administrators, often referred to the
need to have the program "fit" the specific school environment when they implemented
the prevention initiative. As a new school adopts the initiative, it is important to
determine how to assimilate a program within the broader school context and keep a
record of other school-based supports and initiatives. This record can aid the
implementation process and help to sustain a program if it "fits" within the greater school
context, and can also reduce the likelihood of program replication.

Delivering a program that "fits" a specific school is named a "differentiated"
program in this paper. It is a recognition and acknowledgement that the "one-size-fits-all"
approach to practice doesn't work (Peirson & Prilleltensky, 1994). Differentiated
program is similar to the current discourse in child welfare programming and literature in
Ontario (Child Welfare Transformation Plan, 2005), California and Olmstead County in
Minnesota (Conley, 2007; Edleson, Gassman-Pines, & Hill, 2006) where the concept is
named "differential response". Creativity and imagination for the implementation team
are important characteristics to make the "differentiated" program work. A
"differentiated" program is one that respects diversity within school communities and
needs to be flexible and accommodating to the participants in the program.

See Figure 9. on page 130 for a visual depiction of the differentiated program.
Program differentiation can be structured in content or process by the depth, breadth, and
pace of the set of program activities, or by the progression of implementation. When
considering the contextual factors that were addressed in this study, it became apparent
that sessions were often adapted or differentiated to fit the unique needs of students,
schools, and their diverse cultures.

I found it helpful to have a visual analogy of a coffee maker machine or brewer
through which to describe the program differentiation process (perhaps it was all the coffee I drank during the lengthy process of writing of this paper). For program differentiation to occur, the standardized program curriculum is visualized as the water that is poured through the top of the coffee maker, just as water is used to make coffee. It then is pressed or filtered through the many contextualized factors, or "coffee grounds" that have emerged through the data analysis. The program, beverage, or "coffee" that is expressed at the completion of the brewing process, is a differentiated program which varies depending on the unique needs of a school community. Just as specialized coffee orders can vary from black...espresso...cappuccino...latte...americano...to macchiato to match a person's preference, each program delivery can be specialized to match the diverse needs of a school community.
Program differentiation can occur in several ways. One way is that program administrators can allow for some flexibility in program strategies by maximizing the learning potential of students and teachers. One program administrator, Madeline commented: "It's great to have a good product and then, it's really exciting to see how people can take that product and how they can make it work. Because kids are unique, schools are unique, and it's the structured curriculum that still allows for flexibility in interpretation." During the training process, experienced teacher facilitators may adapt a
specific program activity to better "fit" the dynamics of the group. For example, several teacher facilitators acknowledged the existence of cultural factors in their school by highlighting specific cultural norms that were present in their school through a program activity. Successful dissemination of the prevention initiative into the diverse school culture involves critical consideration of the specific school dynamics. Another consideration is student's literacy level. Some children may require additional support or variation in the delivery of the material to allow the activity to meet the literacy level of the students.

A topic that several teacher facilitators and program administrators shared with me during their interviews was the recommendation that the prevention program be coordinated with other school programs. As another type of program differentiation, it was suggested that the prevention initiative be integrated and adapted within the current school academic curriculum. The initiative needs to be delivered to minimize barriers. Cynthia recommended: "...the program be part of the curriculum of every school so that teachers are teaching the concepts and the strategies and they are comfortable with them. The school is using them as a common language approach towards problem solving. I would like someone to be able to teach STEAM each week to each grade level including kindergartens." This is a form of blending of the STEAM curriculum with the current school board curriculum to become part of the Family Life or Religion curriculum. Teacher facilitator Cynthia worried that: "...if it's not part of the actual curriculum it becomes an extra", which was corroborated by another teacher facilitator, Lidia: "it has to be presented in such a way where it will impact the curriculum, but it will also impact classroom behaviour management; the double prong". In her role as program
administrator, Madeline found it useful to integrate the prevention program within a school while acknowledging the importance of differentiating a program to meet school needs: "... Often times it's the schools telling us how they want the program done and us listening and being flexible and understanding that flexibility is important and not to be too rigid, because I think we want successful outcomes. So let's be flexible and let's be willing to experiment a little bit but do it with having controls in place, in terms of having good, solid, experienced facilitators, keeping the key program activities, and still doing the outcome research."

Successful outcomes occur when a program is differentiated to be unique to fit a school's environment and still adhering to the key theoretical program foundations. Rosa, teacher facilitator, learned that: "It takes some time to make changes in a school. For it to be effective, it has to be part of the school culture. It should be well known with the children as well as the parents and staff. And it takes practice too, to practice these skills. I would say for it to be effective, the program has to continue, year after year." Ryan, a teacher facilitator, summed it up by saying: "if the school boards and the communities and the municipalities took a more proactive role in getting more programs like this in the school they would save a lot of cost and energy and aggravation in dealing with the fallout with our youth." Another way that teacher facilitators differentiated the program for their particular school setting was how they choose to introduce and promote the prevention program within their schools. Teacher facilitators discussed some of the difficult challenges they experienced when introducing the program to their schools. Initially some teacher facilitators experienced some wariness by students about their involvement in the program. In the first year of program implementation some students
felt "labeled" because they were participants in the program: "the first year when STEAM started, the... kids labeled themselves the STEAM 'freak outs'. There was a negative connotation to it right away by the kids themselves". This highlights an example of a disruption to the implementation of the program. Included in the training component of the program are helpful strategies designed to minimize or eliminate issues of stigma for student participants. These are shared during the training by program administrators.

When student stigma is present in a school, it can be viewed as an opportunity to pause and reflect or interrupt the implementation process of the prevention program and consider alternative means to deliver the program in order to eliminate student stigma.

Teacher facilitators shared unique ways they choose to promote the program in their schools. By acknowledging each school's unique and diverse characteristics, several teacher facilitators commented that there was "no stigma" for student program participants. Nicole, a teacher facilitator, noted that the program was: "A status symbol to the point where I had a number of kids say or had their parents say to me, when does STEAM start and how do I get my child in?" Ryan, a teacher facilitator, was able to present a differentiated view of the program outcomes to student candidates by framing the program outcomes in a positive light: "... it is a leadership development program. The program will teach you how to be assertive." Differentiated program delivery can include reflection of specific school cultural factors, and the prevention initiative to be adapted to reflect the school academic curriculum by becoming a component of specific school courses. A differentiated program allows for learning along the way. This will be discussed further in the Discussion section about maintaining fidelity with a differentiated program.
Evolution of Teacher Role in School-Based Prevention Programs

When viewing the teacher facilitator's role in implementing emotion regulation programs in schools through an ecological perspective, interesting patterns began to emerge from my interview data. Grounded in the experiences of the teacher facilitators, principals, and program administrators, I explored the various responsibilities that teacher facilitators held as program implementers. I could see patterns evolve and discovered that teacher facilitators adopted varied and changing roles over time. Exploring these patterns in addition to reading the published prevention literature about teacher responsibilities in schools that had established prevention programs in place, I was able to conceptualize an evolutionary pattern that was able to capture the teacher facilitator experience over time. This evolutionary process occurred when teachers implemented the larger school goal of integrating social and emotional learning for students into a school culture. Specifically, the coded theme that emerged from the data was one that I labelled facilitator “practice knowledge” and this theme stood out as a descriptor of their experiences.

Through the data analysis process, I began to realize there was a similar trajectory that formed for the role of program administrators. As I reviewed the interview transcript from my interview, the experiences I had over the past decade followed a parallel and similar path with progressive changes. I was surprised to find that I shared many similar insecurities and questions that the teacher facilitators experienced.

This evolutionary process for teacher facilitators has been categorized into four different streams that emphasize the progressive changes which typically occur in their roles over the course of time, often over several years and over multiple cycles of
prevention program implementation. Their progressive experiences include: the 1) program facilitator, 2) role model, 3) mentor, and 4) expert. This evolutionary process is summarized in the diagram titled, "Evolution of Teacher Facilitator Role in Implementation of Prevention Program" in Figure 10. (page 136) and illustrates themes that were grounded in the interviews and demonstrates how teachers impact a broader audience than the individual student in the school community. This also applies to the role of program administrator where I found that I made connections with various individuals and organizations in the community, in addition to the teacher facilitators in the program. Students, parents, teachers, principals, funding bodies, and sponsors of the program all were important stakeholders with whom relationships and bonds were formed over the years. These relationships will be described further in the role descriptions over the next pages.

Individual teacher characteristics also have an effect on the evolution of the roles. The diagram in Figure 10. on page 136 represents the progression of roles that teacher facilitators experience as they become confident and competent in their facilitation role and become leaders. The four roles have explicit aspects specifying the tasks teachers are responsible for when delivering the program. Collaboration with teachers, staff, and principals enhance the ability of the teacher facilitator to deliver this type of curriculum. These types of activities typically impact school culture and affect the dynamics across school classes and grades. Quotes taken from teacher facilitator study participants help to illustrate the responsibilities that accompany each role. My findings also highlight some of the challenges in achieving and maintaining fidelity of an intervention over time as the teacher facilitator role evolves. Madeline, a program administrator, observed the
progression of teacher facilitator role over time: "...part of the success of our STEAM program is in the way that we bring people along. It's the train-the-trainer model. We include people with their interests and abilities to take on greater leadership roles within the program. That's why it's successful."

**Figure 10 - Evolution of Teacher Facilitator Role in Implementation of Prevention Program**

**Program facilitator**

Teacher facilitators initially begin the role of program facilitator with some trepidation about the responsibility of delivering a program that includes a standardized curriculum manual that is over 350 pages in length. They are required to recruit and screen student referrals to the program, host parent sessions, liaise with teachers, co-facilitate a program with two new facilitators, and quickly learn the curriculum. This teacher facilitator role is one that is undertaken with great accountability to deliver a quality program and teacher facilitators often feel overwhelmed with all the components
of the program they are expected to learn in a short amount of time.

Just as the teacher facilitators felt overwhelmed with the responsibilities, it was a similar feeling that I had as a new program administrator. I developed the program curriculum and created session plans, hired and trained contract social work program facilitators and interns, recruited children as program participants, facilitated parent sessions, and developed relationships with various partners to launch the program in its inaugural year. I recalled it being an exhausting year, however; it was exhilarating to be involved in an exciting new prevention initiative that was built on a collaborative framework.

Jasmine, a program administrator shared: "the first year is very challenging for teacher facilitators. I think the excitement of being involved in this program carries them through their first year but there's a lot of leg work that needs to happen prior to the first meeting with the children." Diane, a teacher facilitator found that her: "first year was very overwhelming, lot of paperwork, it felt like it was just nonstop and then have a very highly active group, not knowing a whole lot about STEAM to begin with. It was really trial by fire!"

Rosa, a teacher facilitator, shared about the learning that took place: "I needed to do a lot of learning myself and I did." For many of the teacher facilitators, it was a new experience for them, unlike their previous school experiences. Ryan (teacher facilitator) wondered: "what is this going to be, what is it all about"? Similarly for teacher facilitator, Christa shared: "I think the important part is learning [the contents of] the binder, going through it and doing your homework. I know it's overwhelming! When I got it was like...God! I sat there for days looking at it! I think that's a huge thing." As teacher
facilitators move into the second group cycle, they gain confidence and are better prepared to accomplish the facilitation components. Ryan noticed that: "The second [group] cycle I got on that much sooner than I should so that it would end up being ready when I needed it."

Principals spoke about the qualities they consider when selecting the teacher facilitator in this key leadership role. According to the principals, some of the words they use to describe the important qualities of teacher facilitators; "assertive", "flexible", "caring", "hard-working", "conscientious", "very organized", "advocate for kids", "creative", "positive communicator", "feel confident to speak up" and "...you really have to trust them". Sometimes, the choice of facilitator was obvious as suggested by principal, Tom: "I can't even imagine someone else running it".

**Role model**

In the second stream in this evolutionary journey, the teacher facilitator progresses to a role model and is conscientious about setting an example for other students in the way they manage their own emotions and how they navigate their way through conflictual situations. Teacher facilitators are often personally motivated to build their own knowledge base in group facilitation and their 'toolkit' of skills, both at school and at home within their own family. In addition, they see their role as 'getting other teachers on board' to support the program and to reinforce the concepts from the program in their classroom environments.

One of the key reasons that schools are motivated to select the STEAM program for their school is the strength of their teacher facilitator skills. Typically, Educational Assistants (EA) are selected by principals to be teacher facilitators because of their
demonstrated interest in prevention efforts, and the positive relationships they had with students and staff. Principal Lindsay shared the reasoning for her selection: "I picked her based on the fact that a lot of kids came to talk to her about issues already ... I thought she might be able to be a good bridge between the kids and the staff". Teacher facilitators were clear on what their role in schools was in motivating students to learn skills. According to teacher facilitator, Lindsay: "I wanted to empower these children with the skills so that they could be successful". Teacher facilitator, Joan aimed to have children: "...get them to actually resolve their own conflicts". The facilitators need to be available insisted teacher facilitator, Nicole: "We need to have the STEAM person always there available to listen and to deal with the children", and they need to be both role models "...we need to model that behaviour", and be student advocates in the school. Teacher facilitator, Cynthia was passionate about her responsibilities: "This is the stuff that I love to speak about".

Teacher facilitators spoke about their personal motivation in continuing to be a facilitator and the opportunity to be both a role model and shared the personal benefits they receive. Teacher facilitator Christa shared: "I think I have grown as a person, and I think it's because of this program, honestly I really do! Teaching the kids to have the confidence to speak out; to do that I've learned along with them." Ryan, a teacher facilitator stated: "I wanted to learn and I wanted to teach the kids what I was learning as well." Susan also took on the role with enthusiasm: "I was super excited and the fact that there was training involved, which is nice. I just felt more respected in the school because I could actually do that and people would know me other than the EA within the school. It's an expansion of your professional self!" Teacher facilitator, Rosa commented:
"...there was a lot of learning on my own as well with my own personal life." Another facilitator, Susan excitedly stated: "I'd be there for free, just so they could do another school!"

Personal development and learning was also a theme throughout the initial phases of my role as program administrator. I learned to understand the public school system hierarchy, the importance and value of the role of the principal in a school, and developed skills as a role model to lead program facilitators in becoming champions in each of the schools. I became more assertive in my communication patterns by practicing the skills from the program curriculum with both community professionals and my children at home.

Nicole, a teacher facilitator, commented on her personal evolution and growth: "I think I grew with the program to be honest with you. At one point I thought why are they [students] doing that? They're always in trouble and it's just I grew with the program. I myself use STEAM strategies, I bring my personal life into temperature scales and things like that but I never used to. I thought the kids need to see that you've had a crappy day too and things aren't going so great for you so I bring in my own examples from my life... I use those tools... I breathe, I read a book, I go for a walk, and I think that changed me too. I think with the kids in the program I sort of grew too. I never realized it that I went through that too with the kids."

**Mentor**

When teacher facilitators evolved into the mentor role, the third stream, they become mentors to fellow teacher facilitators who had just began the role of teacher facilitator by encouraging, supporting, and reassuring new teacher facilitators. They
emailed each other, shared information at meetings, and provided suggestions on ways to engage children, teachers, and the school. The mentors also provide support, supervision, and guidance to new social work intern facilitators who are paired with them to co-facilitate the group. Often these experienced teacher facilitators have been involved with two or more group cycles and are quite confident with the program material and their schools are supportive of the initiative. At this time, teacher facilitators may begin to adapt or differentiate the program curriculum, either by modifying the curriculum to meet the specific needs of the school or by integrating the key program activities into school activities.

One teacher facilitator, Cailey spoke enthusiastically about linking resources into her school environment and being the catalyst for positive change: "I love what I do! I really enjoy running these kinds of things and I've run many different programs. I love bring in outside agencies in, so I've gotten quite a few from neighbours and friends .... I'm all for outside agencies. The way I look at it, I learn too and they always come with materials. I always have a copy so it's helps to extend my repertoire as well. I think the more the school can see we're using outside agencies makes it less scary for them."

Ashley (teacher facilitator) spoke about being a support and mentor for fellow teachers and staff: "This is a huge part of what I do here, which is great....this is sort of giving us focus, getting more 'bang for our buck' because I'm able to go in the classrooms to give them stuff...teachers can refer the kids that need the extra help to me. So it's really opening the gate."

In her mentor role, Pam spoke about supporting fellow teacher facilitators just beginning the facilitation role in their own school and the worries they had: "That's what
other facilitators have told me when they emailed me they've said that I thought I had to do all this. I email them back and say, 'slow down, you're doing fine.' As well, teacher facilitator, Pam felt: "if the teacher facilitator is a mentor for the classroom teachers, [then] the classroom teachers are much more comfortable." Rosa commented on the support she received from more experienced teacher facilitators: "The sharing of experiences of other facilitators through the training was also helpful. You need to be open for asking for help and from more experienced facilitator's cause that will lessen the load and build your confidence. Just hearing that it's ok the first year is a big help."

Through the process of supervising social workers, teacher facilitators and student interns as a program administrator, my role as a social work professional mentor evolved and flourished. I relished the camaraderie of working closely with dedicated professionals and adult interns, and encouraged interns to transition to contract staff following completion of their internship. Subsequent program administrators also began their employment within the prevention program as interns or social work facilitators and were promoted to the position of program administrator. It followed a train-the-trainer adult learning model.

A key dimension of the mentor role is the subtle shift that occurs with teacher facilitators when they gain experience and begin to fine-tune the program to “fit” their specific community needs. Diane, teacher facilitator, observed: "As you start delivering the program more, you always tweak it to fit your own personality. Each year that I've done it, even though the program is the same; the delivery of it always a slightly different according to the facilitator delivering it. They might have different ideas of how to deliver certain portions of it, so that definitely comes with experience."
As a school adopts a program, teacher facilitators in the mentor role consider promoting assimilation of a program within their broader school context. Consideration must be given to coordinating or “linking” the preventive program with other school-based support systems including, special education, mental health support providers, and other preventive initiatives as part of the implementation process. Principals reinforced the importance of what they termed "dovetailing" programs together to create a 'fit' for their particular school. Together, the school programs can create an integrated network of services to meet the varying needs of school communities. As Principal Wendy indicated: "what you have to do is, you don't adjust the school to STEAM, you adjust STEAM to the school". Schools are unique and the programs need to reflect their uniqueness. Principal Lindsay noted that: "...one job as principal initiating STEAM is to know our community and to really try and tailor it to our community", and reflect the culture of a specific community, "...we may need to rephrase things a bit because of some of the cultural norms might be somewhat different or more accepted in that community." A note of caution during this process is to ensure that program interruptions do not occur so implementation fidelity may be threatened. Maintaining fidelity with differentiated programs will be addressed further in the Discussion section.

Expert

The fourth stream that experienced teacher facilitators may evolve into is the expert role where they feel confident to be leaders in class-wide and school-wide activities, whether it is school assemblies, a school play, or an initiative that showcases student leadership talents and skills. This expert role is an advanced leadership role for teacher facilitators because they have become very knowledgeable about the prevention
program curriculum and embrace the social and emotional learning that can be integrated within the school community. In order to be successful in this expert role, teacher facilitators need to have a strong theoretical understanding of the program to ensure that program adaptations are congruent with the conceptual aspects of the program. Being very knowledgeable about the program, expert facilitators understand better how to integrate the prevention program material into broader school activities.

Based on the findings from my study, expert facilitators undertook leadership responsibilities for the intended outcomes of increasing the social and emotional knowledge and skills for the elementary children involved in the prevention innovation. They also invested themselves into their expert role by influencing the school climate to include social and emotional concepts and skills. By accepting the role of teacher facilitator, they agreed to participate in the training process and the delivery of the curriculum content. Joan found personal motivation in her expert facilitator role: "...the most enjoyable part is watching the kids grow in the program, what they have learned and taking what they have learned into the classroom at home and hearing good things from the teachers and the parents."

I noticed a parallel process occurred with my role as program administrator. Part of my role responsibilities as the STEAM program administrator evolved to include promotion of the program within the community for educational and fund-raising purposes which evolved into an expert role. Although it was an extremely challenging and demanding role for me to fulfill, it was exciting to present the program material to 50 to 200 audience members at a time (sometimes televised) who were interested to learn more about the prevention program. Taking on the responsibility of creating a workshop
at a conference or writing an article became new ways to share the information and disseminate the knowledge that we had learned during the development of the program.

Class instruction was one school-wide activity that was frequently mentioned by teacher facilitators and school principals as helpful in disseminating information in schools. Teacher facilitator Nicole reported: "Word spread throughout the school rather quickly, and teachers handed me their classes", and this expert facilitator took the opportunity to reach entire classes, "I needed to get into the classroom".

Blending the program curriculum together with the school board curriculum is one way to incorporate the program themes into a school and is an example of how modification or adaptations were made to the program materials. Expert facilitator Nicole suggested this be done through activities, such as the drama curriculum: "The children re-wrote this story book...then we invited the teacher into the classroom, used a microphone and [rehearsed]. The kids dramatized their story book...and got a drama mark". Classroom presentations are another method that expert facilitator Lidia utilized to incorporate the prevention program activities into the curriculum: "STEAM kids go into the classroom and do the presentation with their teacher facilitator and the kids lead school assembly meetings. That was a status symbol!" reported Principal Wendy. Principal Lindsay: "One of the real things that hooks the children is they're going to host the morning announcements and do the STEAM report, which makes you a Disc Jockey." all of which benefit entire school. One expert facilitator Nicole stated: "This is universal! Maybe this is for all kids, not just those kids who are flying off the handle". Expert facilitators noted that the program created teachable moments: "...you can do role plays, but if a child has a conflict out in the school yard or in basketball, oh wow...talk about a
teaching experience! This is wonderful!"

The teacher facilitators are the champions, leaders and "experts" in the school and the ones who integrate the initiative into the school culture. Expert facilitator Ryan shared: "when I was explaining [STEAM] to them, and being a little bit of a cheerleader for it...this is fantastic because we're going to have the parents involved...it's a well-rounded program...I think the paradigm shift in administration is helping as well, refocusing the school." Bethany (teacher facilitator) found that: "implementing the program itself within the school so everybody's doing STEAM" was effective for their school culture. Rosa's experience confirmed that this evolution took some time to implement: "That first year we weren't seeing a lot of results and it was bit of a struggle to get everyone involved because second and third year were when we started changing the culture of the school."

When comparing teacher facilitator responses to the interview questions, I found that teacher facilitators took on increasing leadership responsibility over time within their school environment as they progressed through the four evolutionary role streams. Through this evolutionary process, facilitators gained a multitude of group facilitation skills, became leaders in their schools, their confidence soared to new heights and they became "experts" in their roles.

As a program administrator going through a parallel process, I evolved as a social work professional, gained a diverse set of skills and, in the process, decided to return to grad school to further my education. Children's mental health, social and emotional learning and the education system ignited my passions to further my learning and these evolved into my program of research.
In this study, it was determined that expert facilitators were motivated to implement the higher order of delivering social and emotional learning into their school and took a leadership role in doing so. They were viewed as school leaders, experts and "culture carriers" in leading school reform and in managing difficult student's behaviour. The progression of a teacher facilitator's skill development over time occurred during the implementation of the prevention initiative into the school climate and culture. Although the role of the teacher facilitator evolved over time from facilitator to expert, the teacher facilitators took care to maintain the integrity of the prevention initiative and to deliver the program with fidelity.

**Adapted Integrated Program Framework**

There is a lack of literature on school-wide prevention programs and, specifically, a lack of focus on process, or fidelity of interventions. Through this research study, my aim was to address the gap in the research literature that exists when it comes to formulating a holistic or ecological view of overall environmental factors in schools, homes, and in the community that impact the quality of implementation of school-based prevention programming. The layers of individual, parent, school, community, and cross-system involvement identified in the original Integrated Program were identified as necessary aspects of the implementation process. The IP framework explored in this study incorporates multi-levels of systems from the individual, to organization, to community contexts. Two of the areas that formed a critical component in the Integrated Program are the ongoing collaboration of schools and community mental health partners and the training and supervision that is provided to the delivery team.
In their interviews, both teacher facilitator and principal study participants emphasized the importance of the role of the social worker and the program administrator within the partnership between the school and the community mental health agency. The relationships that developed between the teacher facilitators and the social workers (both program facilitators and program administrators) were important to the delivery of the program and enhanced fidelity because of the quality of the training, the skills of the program administrators, and the ongoing supervision that was provided to teacher facilitators and school support staff.

There were many lenses that can be used to explore the Integrated Program, however, for this particular study I chose to view the IP with a focus on the teacher facilitator role as pointed out by the arrow in the diagram below. This viewpoint has shed a light on a number of issues, yet further exploration of the IP framework is necessary to fully understand the potential implications of the framework. Future research from other perspectives, such as the parent, classroom teacher, or through a political lens is recommended to fully understand the various factors affecting implementation fidelity of a prevention program.
I explored the gaps that exist in the literature that were identified in the IP model related to specific key program factors through the lens of linkages and interruptions to determine how these factors influence the implementation process. The areas that were critical to the implementation process and highlighted by study participants earlier in this chapter included training/supervision (i.e. quality and support), resources (i.e. time, space, supplies), technical (i.e. curriculum manuals) and stakeholder support (i.e. supervisory and board level). As well, key contextual factors, including political (i.e. government agendas, support), cultural (i.e. language, customs), economic (i.e. program funding priorities) and practice-based knowledge (i.e. evidence-base) figured prominently in the original framework and were identified as critical by study participants in this study.
The Adapted Integration Program framework Figure 11. above identifies four circles in the center of the diagram rather than the three previously labeled in the original IP framework. This new finding is reflective of the findings that emerged from the data and exemplifies the significance of the social worker/program administrator role in the delivery of a prevention program and how the collaboration is critical to the success of the implementation of the program. Numerous study participants recalled the critical role their social worker held in the process of implementation of the program and in the school’s adoption of the program into their school culture. As well, study participants repeatedly mentioned the significant role of the social worker who had roles as an administrator, trainer, supervisor, and as social work interns in the program dissemination process. The valuable support provided to schools was evident by the mental health
knowledge and program facilitation skills the social workers brought to the school. Social work administrators provided excellent training and supervision to the schools who participated in the prevention program delivery. This supportive social work role is discussed in greater detail in Chapter 5, the Discussion chapter.

It could also be interpreted that the leadership and supportive role social workers provide in schools is necessary to gain school and community support for the program and may enhance the sustainability of an innovation. By partnering with community-based mental health professionals in the dissemination of school-based prevention programs, the likelihood of maintaining a program in schools over a period of time increased.

Another key finding grounded in the data was the development of the "differentiated program" where the program must be able to "fit" into a school culture and the need to be flexible in the delivery of the program. This modification is demonstrated in the diagram Figure 11. Adapted IP Model shown on page 150 by the zig-zag line through the model. The zig-zag line represents the interactions that need to be considered when implementing a differentiated program. The zig-zag line also demonstrates the dynamic and interactive movement between the various stakeholders and contextual factors in the IP model and may look different depending on the school where a program is implemented. It should be noted that the zig-zag line touches on all aspects in the diagram just as it does in the implementation process. The ability to implement a program in a real world setting where each environment is unique as are the contextual factors and the necessity to find ways to maintain fidelity is an important finding. By adapting the program to fit a school culture but making sure to maintain key theoretical
program components aids the process of implementing a program with fidelity. If adapting a program to a local community, following the program theory guide is critical to keeping fidelity of the program (Greeenberg, Domitrovich et al., 2005). This process was explored earlier in this chapter with the discussion of findings related to the evolution of the teacher facilitator role and was also explored with the linkages and interruptions which were highlighted in this chapter.

Whereas this research into the various factors affecting successful prevention programming implementation has provided a great deal of information, a gap still exists and further research exploring the Adapted IP framework is important to integrate these factors into a holistic model.

**Conclusion**

The findings presented in this chapter suggest four broad conclusions. First, key factors that created linkages to the program implementation process with fidelity were revealed through the data analysis. Interruptions to the implementation process create an opportunity to pause, to reflect, and to consider alternate implementation strategies but may also threaten the fidelity of the prevention program. Specifically, schools appeared to function well or were able to create “linkages” in terms of receiving quality training and supervision, technical support and resources. They experienced challenges or “interruptions” in the first year of delivery of the program, garnering support from school board level, integrating the program with academic programming, and limited program funding associated with the difficult current economy. Second, as prevention program facilitators, or in this case teacher facilitators develop their facilitation skills and knowledge base over time, an evolution of their role occurs, raising teacher facilitators to the level of school leaders and “culture carriers” or “experts” in school reform.
Third, the study findings confirmed the assertion of Chen et al. (2008), who suggested that program fidelity and adaptation may actually serve to complement each other, especially in real world settings where settings have unique contextual environments. This complimentary relationship enhanced the ability to deliver the differentiated programs to diverse schools, incorporating contextual factors and still maintaining program fidelity. The findings are supported by the literature from Forgatch et al. (2005) and August et al. (2003) who determined that local community programs needed to try to balance program adherence to program participant needs while holding true to program theory and goals.

Fourth, the Integrated Program framework was refined to the new Adapted Integrated Program as a result of the findings that emerged from the data to clarify and confirm important factors in the implementation process.
CHAPTER 5: DISCUSSION, RECOMMENDATIONS & CONCLUSIONS

This chapter includes a review of the key findings from this study and a discussion about the evolution of the teacher facilitator role. Next, implications for social work practice with prevention programming and recommendations for further research and practice are highlighted. Finally, study limitations and study conclusions are addressed.

The demand for evidence-based educational prevention initiatives is likely to increase as its importance for informing practice is understood. In discussing the results of this study, it is important to keep in mind how mediating factors, especially those contextual factors identified in my findings chapter influence teacher facilitator's fidelity of program implementation. We can then incorporate the contributing linkages to strengthen fidelity of the program and implementation process. It is important to consider and reflect on interruptions to existing program implementation process as this can enhance and improve the current processes. There are other times where interruptions disrupt the process.

Key Findings

In Chapter 2, I described the Integrated Program (IP) framework that was grounded in the current theoretical and empirical literature and was developed to enhance the implementation of school-based prevention programs. Undertaking the present study that involved interviews with teacher facilitators, principals, and program administrators, has generated a deeper understanding of the motivating and contextual factors that shape the prevention program implementation processes. Exploration of the economic, cultural, political, and practice knowledge related to practice contexts of teacher facilitators'
implementation of an emotion regulation program in elementary schools has provided evidence to confirm and modify the Integrated Program framework.

In the present study, exploration of the Integrated Program (IP) framework in relation to specific factors that, I believe, have a critical influence on the implementation and delivery of services in schools was useful to determine which factors played an important role in the process. This analysis provided a significant opportunity to apply the Integrated Program framework in an elementary school-based setting. Fine-tuning of the Integrated Program has emerged through the analysis of the interview data in this research study. The IP framework builds the capacity to implement specific programming. General capacity is focused on building infrastructure and skills to put an innovation into practice. Specifically, I looked for a deeper understanding of whether the supports were in place to influence implementation in the case example prevention innovation, STEAM, from the perspective of key contextual and motivating program factors; training, supervision, stakeholder support, resources and technical support, as well as, cultural, political, economic, and current state of knowledge (evidence-based theory/practice).

Contextual factors were reviewed through a unique lens of linkages and interruptions and presented in the findings chapter. This represents an important contribution to the language in the prevention literature in understanding program implementation procedures. Linkages that facilitated program implementation for teacher facilitators included important program resources, such as: having a private space to hold group sessions; having sufficient time to facilitate, plan and prepare for group sessions; ongoing support from key stakeholders including school principals and school board
administrators; acquiring buy-in from classroom teachers and staff; maintaining open communication among stakeholders; guaranteeing quality training and skilled supervision; recruiting the right mix of students for each group; developing practice experience; and ensuring the theoretical conceptual base of the program and evidence about the program's effectiveness is included in the dissemination process.

Subsequently, the contextual factors considered to be barriers or interruptions in the implementation process that could threaten the fidelity of the program include: the lack of support from the school board; lack of program funding; lack of cultural relevance; challenges or barriers faced during the first year of program implementation; and the environmental and funding hardships present during the current economy. Taking pause to carefully consider the implications of the interruptions can help to dictate a plan to problem-solve and move forward with a realistic plan that considers program fidelity.

The second contribution to the prevention literature centers on the evolution of the teacher facilitator role over time as they gain experience in program facilitation within a school-based real world setting. The evolution of the teacher facilitator role was categorized into four different streams to highlight the leadership progression that typically occurs in their role over the course of time, often several years and multiple cycles of prevention program implementation. The four progressive roles are program facilitator, role model, mentor and expert. Investigating this process of role evolution is useful information to those considering designing or implementing teacher facilitator led programming initiatives in elementary schools. This perspective has been offered here to further the field of school-based children's prevention programming in the area of implementation processes.
Although school teachers have traditionally focused on covering academic content in the curriculum during the school year, it is recognized in the literature that teachers play a variety of roles within the education system in addition to their role as lecturers, including the role of teacher leaders (Almy, 1975; Carlsson-Paige, 2001; Somech & Drach-Zahavy, 2000). The role of engaging and motivating children to learn and participate in schools is important and is a critical role that teachers play (Forester & Reinhard, 1994). This expanded role of actively educating the whole child (e.g. educational, social and emotional) is based on an ecological perspective which recognizes the influential role of a variety of contexts (school, family, community, etc.).

Teachers often take on expanded leadership roles in schools including mentoring other teachers, participating in school change or improvement, greater level of involvement with parents and the community, and making contributions to their profession through professional organizations. What is known about teacher leadership and can the findings from the present study about the evolution of the teacher facilitator role be viewed through the lens of teacher leadership? From a literature search of the teacher leadership publications, it appears that the education field has published a number of studies, however, the collective literature is overwhelmingly descriptive, consisting of mainly small scale case studies rather than explanatory or theoretical research (Anderson, 2004; Buckner & McDowelle, 2000; Kahrs, 1996; Little, 1988; Ovando, 1996; Pellicer & Anderson, 1995; Smylie & Brownlee-Conyers, 1992; Silva, Gimbert & Nolan, 2000; Troen & Boles, 1994). Studies have largely focused on teacher leadership from administrative leadership positions, such as principals or as Marks and Louis (1997, p. 247) determined, "centered on non-instructional individual and organizational outcomes"
and literature is sparse on leadership in direct classroom practices and teacher roles.

Crowther, Kaagen, Ferguson, and Hann (2002) describe their view of teacher leadership as;

action that transforms teaching and learning in a school, that ties school and community together on behalf of learning, and that advances social sustainability and quality of life for a community. . . . Teacher leadership facilitates principled action to achieve whole-school success. It applies the distinctive power of teaching to shape meaning for children, youth and adults. And it contributes to long-term, enhanced quality of community life. (p. xvii)

This view appears to fit well with findings of this study where the evolution of the teacher facilitator role developed over time as teachers took on leadership roles with greater responsibility. I was interested to explore whether there were any similarities in the literature in the context of my research findings. Interestingly, some parallel processes were noted with my findings and the literature as well as some unique features in my findings. From a review of the teacher leadership literature over a two decade period, York-Barr and Duke (2004) deemed there are several conditions that influence positive teacher leadership roles. These include various factors such as: teachers were valued as positive examples and seen as role models and colleagues respect teachers within area of expertise and instruction (Little, 1988); principal support for teacher leader occurred through coaching, feedback and formal structures in schools (Buckner & McDowelle, 2000; Kahrs, 1996); clarity about teacher leader roles (Smylie & Brownlee-Conyers, 1992a); structures that support learning (professional development) (Darling-Hammond et al., 1995a); access, time, and space in schools (LeBlanc & Shelton, 1997a; Ovando, 1996; Troen & Boles, 1994); removal of hierarchical structures in schools and districts (Stone et al., 1997); expectation of teamwork and sharing (Katzenmeyer & Moller, 2001;
Pellicer & Anderson, 1995); and a high level of trust between teachers in the school (Silva et al., 2000a). Successful teacher leaders typically establish a strong relationship with their principals (Ryan, 1999) and this support is consistent with the findings from my study. Without principal support, it was difficult to sustain new prevention interventions in schools. My study determined that solid levels of communication and feedback among teacher leaders, principals, staff, and parents aided in the development of teacher facilitator leaders which was supported in the literature (Hart, 1994a). Another area where my study findings were consistent with the teacher leader literature was professional development through formal coursework or training opportunities and coaching or supervision from a principal or other administrators and this enhanced the development of teacher leaders (Henson, 1996; Ovando, 1996; Smylie, 1994).

This study highlighted a focus on implementation fidelity and the important leadership role that teachers play in educating the whole child while affecting the school climate. My research focused on gaining a deeper understanding of the various roles teachers play; specifically, the critical functions, leadership activities, and evolution of the roles that teachers possess in prevention initiatives in school environment. By understanding the teacher facilitator role in the delivery of social and emotional or health curricula, the importance of creating, enabling, and maintaining a positive school environment can be better understood.

Several contextual factors from this study highlighted in this summary section include and add valuable information to the prevention literature regarding contextual factors: open communication with key stakeholders, adequate program resources, and quality training for teacher facilitators. Maintaining a pattern of open communication
between program facilitators, individual schools and the school board, program administrators, and the evaluation team aided in ensuring that a high level of fidelity in program dissemination continued in diverse school settings. Open communication could be considered to be an encourager and motivator to teacher facilitators to continue investment of their time and energy promoting and disseminating the preventive initiative. Kam et al. (2003) noted that an important factor influencing the success of implementation of a prevention initiative is the long-term commitment and support from school boards. Adequate school principal leadership and support for the development and maintenance of an intervention is critical to its implementation and successful outcome (Berends et al., 2002; Berman & McLaughlin, 1978; Fullan, 2001; Gottfredson & Gottfredson, 2002; Kam et al., 2003; Rohrbach, Graham and Hansen, 1993).

Resources, including time and space are other areas that were highlighted by study participants. A realistic amount of time needs to be dedicated to implementing prevention programming if they are to be considered successful endeavours that have been implemented with fidelity. This observation supports the implementation literature that suggests that schools allocate sufficient time for staff training, ongoing supervision, and program planning (Elias, Bruene-Butler, Blum & Schuyler. 2000; Gottfredson & Gottfredson, 2002; Peirson & Prilleltensky, 1994; Weissberg & Elias, 1993). This serves to enhance the quality of implementation which in turn, improves program fidelity. Initiatives that operate with a significant reliance on volunteer time do not have a good prognosis (Weissberg & Elias, 1993). Peirson and Prilleltensky (1994) found that the participants in their study spoke about the importance of having sufficient time to devote to the program and administrators needing to make allowances for staff involved in the
program, which may include a reduction in other activities and a significant amount of quality training.

The importance of high-quality training was repeatedly observed by study participants as critical to the dissemination of a program. As teacher facilitators were expected to disseminate a school-based prevention program which required them to learn new teaching methods and group facilitation skills, quality training helped teacher facilitators develop skills and instilled an increased level of confidence. Training increases the ability of teacher facilitators to implement innovative and often complex components of prevention programs, as found in previous studies (Elias, Zins, Grazcyk & Weissberg, 2003; Gottfredson & Gottfredson, 2002; Kealey, Peterson, Gaul, & Dinh, 2000; Markham, Basen-Engquist, Coyle, Addy & Parcel, 2002; Perry-Casler, Price, Telljohann, Chesney, 1997). As part of the high-quality training process, ongoing support and monitoring promotes communication with all stakeholders and aids the implementation process and helps to focus on fidelity. Hahn, Noland, Rayens, and Christie (2002) found that school personnel were more likely to be enthusiastic and maintain implementation fidelity if they were supported throughout the delivery process in a substance abuse prevention program in schools. Within schools, teacher facilitators can play a leadership role in implementation of SEL programming to impact school climate and culture if given sufficient time and high-quality training. Understanding the links and disruptions that impact teacher facilitator motivations has an important role to play when prevention programs are considered in elementary schools.

The study findings suggest that the current conceptualization of implementation fidelity should be expanded to account for the influence of the contextual factors,
especially the evolution of teacher's roles in the implementation of school-based prevention programs. The traditional view of the teacher's role as knowledge dispensers has given way to a perspective that educating the whole child is important, including the engagement of students to learn social and emotional skills which help students learn and perform better in school (Forester & Reinhardt, 1994). In the literature, more emphasis has been placed on the overall dissemination of a program whereas inadequate consideration has been given to the effect that individual and contextual factors have on the implementation of a program with fidelity (Dusenbury, Brannigan, Falco, & Hansen, 2003; Ringwalt et al., 2003; Scheirer, 1987). The findings from the current study contribute to the implementation literature and suggest that it is important to consider the concepts of contextual issues that have been outlined in the modified version of the IP framework – cultural, political, economic, practice-base evidence, and differentiating the program when conceptualizing the factors relevant for implementation. These contextual factors are important and can vary dependent on the school setting. The variety in school settings requires some flexibility in the implementation process and necessitates the adaptation of a program to "fit" unique school environments. It is necessary to keep the contextual factors in the forefront when determining the implementation plan to create "program differentiation". Taylor (1999) assumed that psychosocial interventions are contextual and are situationally grounded and the intervention derives much of its meaning from the situations in which it is used.

From the analysis of the interview data, it was apparent that variation between teacher facilitators occurred in the extent of adaptation in the delivery of the program in schools. Some teacher facilitators modified one or more activities, or integrated learning
activities into the regular curriculum whereas others decided to implement the curriculum precisely according to the program curriculum manuals. The evolution of the teacher facilitator role over time may include some program and content adaptation to address contextual needs. These need to be linked to the value of teaching elementary students concepts related to emotional and social learning. If aspects in the delivery of the curriculum are modified to reach diverse school populations, this is typically perceived by teacher facilitators as a necessary adaptation if they are to continue to teach the curriculum in their school. From their perspective, it may be better to adapt the program to meet contextual community needs than not teach emotional and social learning to students at all.

Skilled group facilitators have learned how to run an effective program by being able to make the program material fit for the participants, not the other way around. Running a prevention school-based program is not about mechanically doing what is laid out in the curriculum manual. These skilled facilitators have gained the knowledge and skills to "internalize" the program theory and philosophy through both the quality training and their group facilitation experience. They are comfortable with a variety of styles of group work to be able to "stay in the moment", use interactive group processes, utilize the information that group participants share in the group and relate the material to the applicable key theoretical lessons in the curriculum. In that moment, the facilitators are not thinking about the next lesson plan from the program curriculum manual on page 66, but rather, how the contextual information that students bring to the group (such as the fight between two group members on the playground) can fit with a discussion in the group about learning critical conflict resolution skills. Gottfredson and Gottfredson
(2002) determined that locally implemented initiatives that were integrated into regular school activities and became part of school programming were more likely to be sustained.

Several conclusions were garnered from this exploration of implementation processes of a school-based prevention initiative. The study exploring the implementation process addressed the quality of linkages in the organization environment from the perspective of teacher facilitators, principals, and program administrators. This analysis provides the basis for understanding the experiences of planning and implementing the emotional and social learning program in a number of public and Catholic schools.

As a result of the deeper exploration into the components of the Integrated Program framework, several refinements occurred within the model. Specifically, the teacher facilitator role and the social worker role were added to the Adapted Integrated Program framework which incorporates the findings of this study. The teacher role was discussed earlier in this chapter, but the importance of the social worker role in school-based prevention programming must be added to the Adapted Integrated Program model. Whether the social worker role incorporates group facilitation, administration, training, supervision or the social intern role, all are critical to the dissemination of a school-based prevention program. The value and importance of the social work role will be discussed in the next section.

Implications for social work practice in prevention programming

The implications for practice in social work are clearly related to this research
study. The critical functions of the social work role contribute key aspects to the dissemination and sustainability of school-based prevention initiatives and are prominently displayed in the center of the Adapted Integrated Program framework diagram. Social workers have had an important role in schools since the early 1900's in a variety of capacities (Costin, 1987; Mesbur, 2002; Mesbur & Sullivan, 2009; Radin & Welsh, 1984; Webb, 1996). Evidence-based practice is becoming more common in social work practice, especially group work, and along with this comes the challenges associated with implementation of prevention programs (Macgowan, 2008; Muskat, Mishna, Farnia & Wiener, 2010; Pollio & Macgowan, 2011; Proctor & Rosen, 2008). Moote, Smyth and Wodarski (2007) suggest that social workers are in a position to play a critical role in the advancement of prevention program dissemination in schools, specifically advocating for social skills training. Social workers also perform a key role in the Adapted Integrated Program as outlined earlier in this paper, in their roles as program facilitators, trainers, supervisors, evaluators, and as program administrators.

According to social work literature, program effectiveness is enhanced in school settings when delivered by social workers who are knowledgeable about group process, skilled in leading prevention groups and program facilitation (e.g. see Nash, Fraser, Galinsky & Kupper, 2003). In this study, participants reiterated the importance that the social worker's role has in implementation of a school-based prevention program and the qualities they bring to the program (i.e. training, mental health expertise, group leadership skills). Social workers are typically quite flexible in adapting to local community needs. For example, during the past decade, responding to unique changing and increasing community multicultural issues is one of the areas that the social work profession has
responded to.

In one meta-analysis on school-based violence prevention programs, a significant finding was that programs conducted by specialists with training in the specific area and group work skills was more effective than delivery of prevention material by classroom teachers (Park-Higgerson, Perumean-Chaney, Bartolucci, Grimley, & Singh, 2008). They highlight inconsistencies in the screening and selection process for children's participation in school-based prevention programs and recommend social worker involvement to improve this process.

School social workers are also in a key position to encourage evidence-based evaluation, both process and outcome, of school-based prevention programs either through participation in the research or by supporting evaluation initiatives. Social workers practicing in schools enhance relationships between schools, parents, and community agencies (Germain, 1999). Utilizing an ecological perspective, social workers practicing in schools provide interventions at the interface of the school, home, and community (Germain, 1999). Typically, direct interventions are provided to alleviate issues that affect students and families and their children, including case management, education, group work, and consultation. Social work's commitment to client advocacy and social justice enhances relationships between schools, parents, and community agencies (Germain, 1999).

Viewing the social worker's role in schools through an ecological systems IP framework lens, and taking into consideration the limited available resources in schools, I advocate that we shift the lens slightly to move from a model of medical diagnosis and treatment to an ecological approach that is focused on evidence-based health promotion
and prevention. With increased caseloads, limited support staff in schools, and an increasingly diverse student body, I believe it would be beneficial to expand training opportunities to social workers for health promotion approaches, and increase their exposure to interprofessional collaborations in schools (Gutkin, 2009; Nastasi, 2004; Sheridan & Gutkin, 2000). The importance of the social worker role is highlighted in the Adapted Integrated Program model (as they are in the center of the diagram) and there is much potential for expansion of their role in schools, especially if interprofessional collaboration is encouraged in schools (Crawford, 2012).

There is limited social work literature about interprofessional teams and the implications for working as a cohesive team, especially in school-based prevention efforts. The term "interprofessional collaboration" is used to identify the ultimate collaboration between distinct professions on behalf of a client or group (Caso et al., 1994; Strickland & Turnbull, 1990). This comprehensive approach encompasses a shared vision and emphasizes a holistic-ecological perspective. The literature suggests that it is necessary to create full service schools to directly meet the diverse needs of the student community. These needs can be one or all of the following: career-vocational, health, mental health or recreational development. Dryfoos (1994) indicates that full-service schools are needed that have strong and lasting community connections. Drawing from a systems ecological perspective, if schools and mental health organizations form an engaged partnership, there are shared goals, shared contributions, and shared accountability (Fantuzzo, Tighe, & Childs, 2000) to form a true partnership. Exploration into interprofessional collaboration came to light as part of the process of writing this paper and further exploration of the literature about interprofessional collaboration would
determine whether an expanded role exists for social workers practicing in schools.

Models of interprofessional collaboration have recently emerged in the literature (Geva, Barsky & Westernoff, 2000; Crawford, 2012) and seem to offer great potential to explore and integrate this model with the Adapted Integrated Program.

Social workers are in a position to play a critical role in the advancement of prevention program dissemination in schools. The implications for social work practice and research include several recommendations: 1) implement, promote and study evidence-based school prevention programs that address SEL skill development and link those skills to student academic content; 2) disseminate information with strategies that include teacher's mental health literacy and offering specific training to deal with mental health concerns; and 3) encourage interprofessional linkages in schools by creating opportunities for networking and collaborating between community agencies and school personnel to ensure the coordination of services.

Although the focus of this research study was on the role of the teacher facilitator, the critical role that social worker program administrators hold in the dissemination of prevention programs was woven throughout this paper in discussions about the development, delivery and expansion of a program to ensure sustainability of a program in the future. The significant social worker role is highlighted in the center of the Adapted Integrated Program model. Reviewing my personal interview transcript and understanding the preparation, education, and training that is available to social workers, I concluded that this prepares them with a solid foundation for the role of prevention program administrator: from theoretical knowledge to training opportunities, from organizational, to administrative, to community development skills all are assets to
enable a program administrator to evolve in their professional development as does the teacher facilitator. Social workers have the knowledge base and skill level required to respond to cases where interruptions in the program may occur and immediate, but reflective responses are required. Social workers can determine whether program differentiation is required for a particular school while making sure strict monitoring is in place to ensure program fidelity.

The functional levels of communication between all stakeholders in the prevention program are linked to the role of the program administrator. Viewing the program from an ecological perspective aids in the process of ensuring that communication linkages are created and sustained. Challenges in program dissemination often occur when the program delivery sites are great distances from the program development and administration site. Again, the program administrator role is the key link between program monitoring and the delivery site to ensure program fidelity. Even the evolutionary process of the role development of teacher facilitation can be attributed to the support, guidance, and leadership abilities of the program administrator to encourage personal growth, development and supervision of the teacher facilitator to promote this growth.

**Recommendations for Further Research and Practice**

The present study has highlighted some of the key issues of program implementation in diverse settings while focusing on some of the challenges in maintaining fidelity to the program. Without evidence exploring the key program
contextual factors, identifying sets of procedures required to implement a program in new settings becomes challenging. Due to the limited scope of the present study, there are a number of directions that could be considered next steps in furthering the understanding of the process of understanding the implementation processes in school-based prevention programming.

First, it is argued that as a next step in the dissemination process of the prevention initiative explored in this study, it would be important to consider a collaborative effort between researchers and key community stakeholders to undertake a transportability study (Chorpita & Nakamura, 2004; Schoenwald & Hoagwood, 2001b). A transportability study's main purpose is to determine the procedures to improve the uptake of the prevention initiative in new school community settings. Transportability studies include several strategies to clearly describe an approach; to secure and maintain program funding and referral streams; to create detailed procedures for training and supervision; to identify organizational and systemic changes that need to occur to streamline the implementation and dissemination process in a community; and to document resources, such as administrative support required to monitor and evaluate the program (Rones & Hoagwood, 2000; Schoenwald, Henggeler, Brondino, & Rowland, 2000).

Without the inclusion and articulation of specific contextual factors and the best fit to implement those factors in the implementation process, the prevention program may fail to be integrated in a new system or to meet its intended outcomes. Usually the outcome of a transportability study includes a compilation of a set of detailed strategies which may include adaptations or modifications to the program itself, but are necessary
to accommodate multiple diverse settings. For example, identification of implementation strategies for a small rural school may differ significantly from a multi-ethnic, large inner city school and require an integration of the program's conceptual dimensions and adoption of new strategies and taking into account the entire ecology of the system.

Second, further exploration and study on the extent teacher facilitators need to adhere to the program guidelines and curriculum without compromising their effectiveness should be conducted. Often in practice, teacher facilitators modify and adapt curricula to address local, cultural, political and economic student needs (Helitzer et al., 1999; Steckler et al., 2003). This was also identified in the current study. Bauman, Stein, and Ireys (1991), Berman and McLaughlin (1976), Blakely et al., (1987), Meyer, Miller, and Herman (1993) support flexible programming to meet local needs while adhering to key program protocols and key program components. During the planning process, it is important to identify critical program components that cannot be altered to adhere to the conceptual base of the program, whilst some teacher facilitator modifications may be encouraged to address specific school needs as long as key program elements are implemented. An area of further study is to identify which key program protocols can be considered to be generic to school-based prevention programming.

Third, to ensure a participatory approach to delivering a school-based prevention program, key program implementers should be involved in all stages of program dissemination to develop a protocol that is respectful of individual school cultures. It would be helpful to develop a conceptual framework to better understand the differentiated paths by which key program implementers are involved in school-based
prevention programs. Involvement in key program implementation and dissemination areas include program planning, development of training protocols, creating adaptation activities, designing and articulating evaluation procedures. For example, giving experienced teacher facilitators an increased role as a teacher leader in the training activities and role clarification when planning the training program would enable schools to deliver a program with confidence, knowing that supportive experienced teacher facilitators are accessible and available for consultation and supervision.

The individuals who participated in this research study offered valuable insights and were able to function in enhanced significant community based roles to further build their local capacities with their knowledge and skills in delivering a successful prevention initiative. It is recommended that experienced prevention program facilitators be given increased responsibility with sufficient supports, as articulated in this study to become the “experts” in their school community. This may ultimately enhance the ability of local communities to deliver high quality prevention programming for children. By including important stakeholder voices in the implementation process, interruptions can be considered to ensure the best options for program delivery to individual schools. The participation of stakeholders in the dissemination process increases the likelihood of sustaining a preventive innovation over a longer term. I believe it would benefit implementation research to undertake future studies that might investigate the possibilities and limitations of the framework with different teacher facilitator roles in various school contexts.

Fourth, although there is a demand for programs that are theoretically sound, there is also a demand to significantly increase the volume of students, schools and sites of
implementation or to "scale-up" a program. Scaling up a program was beyond the scope of this study, but is relevant to explore in future research. Various fields have addressed the concept of taking a program to scale (Blumenfield et al., 2000; Brooks, 1975; Datnow et al., 1998; Flamholtz, 1990; Nunnery, 1998; Schafer, 2001; Smith et al., 1998; Taylor et al., 1999; Uvin and Miller, 1996; Uvin et al., 2000; Watts and Kumaranayake, 1999; Zlokarnik, 2002).

Scaling up a program typically includes bringing the innovation to a greater (and more diverse) audience of students and schools. One important aspect of the diffusion of innovation process includes consideration of keeping fidelity to the process while still keeping an awareness of individual educational contexts. A consensus view in the literature "scaling-up by drilling down" involves careful attention to the interplay between the intervention and the fit with the education context. This can simultaneously support fidelity to the program principles and having flexibility to ensure fit in diverse settings. By keeping this in mind about local contexts, the potential of maximum and sustained programmatic impact is more likely.

Moreover, the current study reflects the need to further explore the dissemination process while scaling-up the innovation to increase the number of delivery sites. To bring prevention innovations "to scale", this research highlighted the necessity to better understand what specific factors motivate teacher facilitators in an educational setting. In order to create lasting change to achieve broad student and school community success, program developers must be involved in scale-up research (Schneider and McDonald, 2007):

Scale-up research is translational research. It is conducted with the explicit objective of informing practice—which means not only documenting the
importance of implementing interventions with integrity, but documenting the benefits of balancing fidelity of implementation with adaptation to dynamic local contexts. (Schneider & McDonald, 2007, p. 11)

Scale-up research is the bridge for the gap between excellent scientific inquiry and creating effective evidence-based prevention program practice in educational settings. According to (Dusenbury, Brannigan, Falco, & Hansen, 2003), it is important to understand the specific contextual factors that relate to the variety of implementation processes that occur when an intervention is brought to scale. This analysis investigated factors that were considered to be important to the implementation of a program and this research is the first step in the process to do "scale up" research.

**Limitations of the Study**

Several design limitations need to be addressed that may have affected the findings of this study. Although efforts were made to be objective, I concur with Charmaz (2006) in her beliefs that a researcher is part of the study and part of the data that is collected which creates subjective data interpretation. Some study participant's recalled memories may contain some misperceptions of events due to the passage of time; however, each memory is a personal construction of the events through their personal lens. As most of the data was collected through self-reports, it may be biased and has an inherent risk of inadequacy. For example, questions about personally sensitive issues may be influenced by social desirability types of participant responses (Spector, 1994). The fidelity data are based on self-report, therefore the research could be strengthened by using multiple methods (e.g. interviews and direct observation) or gathering multiple sources of data by independent researchers or videotaping of sessions;
however, this was not possible with available resources. In the area of school-based prevention programming, there is no clarity as to whether self-reports are better or worse than other data sources. Self-reports are less costly than other data collection methods, are easy to obtain, and give the unique perspective of the individual at the school, and may validate the results. As this study involved a smaller number of research participants, it should be considered exploratory. A principal limitation of one component of the research study involves the self-selection bias. Teacher facilitators needed to commit time and effort to contact the researcher to arrange and participate in an interview. Teacher facilitators implementing the prevention program and those who consented to be interviewed were likely invested and motivated in ensuring that efforts be maintained to continue delivery of the school-based initiative.

Measurement reactivity and a systematic bias cannot be ruled out. Attempts were made to mitigate this bias by establishing a climate where I, as the researcher would be viewed as a collaborator in improving program implementation. However, I could have been viewed as an “insider” to the process by the study participants that may have incurred an unintended bias. Nevertheless, my findings can help prevention researchers and practitioners understand how program features and organizational factors can hinder or support the implementation of school-based prevention programs.

An important limitation of this study is its use of one specific school-based program experience case example with implementation in one community but comprised of multiple sites. Experiences may be different in other communities, countries, or cultures and this may limit the generalizability of the findings, though this will not limit the value for theory development.
Conclusions

First, implementing a program with fidelity refers to delivering a program according to a pre-established protocol (Mowbray, Holter, Teague & Bybee, 2003). Other issues of fidelity include the use of appropriate materials (culturally and age relevant, evidence-based activities), training of program facilitators, and the use of prescribed evaluation criteria. The study participants reinforced that contextual factors were an integral part of program implementation, but spoke of the diversity of application dependent on their unique settings.

Second, local implementers must be aware of their school needs to select an appropriate programmatic response. This may require implementation of a “differentiated” program with adapted responses linked to reflect idiosyncratic issues in a specific school. See Figure 9. on page 130 for the visual depiction of a Differentiated Program. For example, in the Catholic school board, religion is a significant platform used to highlight a number of prevention program activities. This is unique to the Catholic school system and requires a response that is different than the public school system. Another example of a differentiated response is required in local schools to reflect the unique needs in the selection of student group participants. Selecting group participants is a distinctive process to each school where quality teacher facilitator training and supervision is linked to the implementation process to ensure that selection of the appropriate mix of students occurs for a successful group experience and outcome.

The findings from this research study suggest that a “differentiated program” was useful to the evolution of teacher facilitator's role over time to encourage full integration.
of the program innovation into a school culture. I believe that teachers should be encouraged to take on a variety of roles over time to convey the program objectives and outcomes as well as become “experts” in their school setting. This is further reinforced in a graphic description of the evolution of the teacher facilitator role in Figure 10. on page 136. Experienced teacher facilitators were encouraged to take on prominent roles in the training process of inexperienced program facilitators by guiding trainees through the implementation steps of program activities. Opportunities were available for teacher facilitators to share their school adaptation activities during training sessions. This can positively influence the impact of social and emotional learning programs in school settings.

To deliver a “differentiated” response model in a school, I advocate for increased shareholder involvement to create a partnership for implementation of the school-based prevention initiative. Other policy makers in diverse fields, including education (Adelman & Taylor, 2004; Harkavy, 1998; Stein et al., 2002) and community settings (Harper et al., 2004; Radda, Schensul, Disch, Levy, & Reyes, 2003; Sullivan & Kelly, 2001) have chosen partnership models between researchers and community members to promote broad and sustained dissemination of prevention initiatives. Currently, the development of school-based prevention initiatives is primarily researcher driven or “source-based” according to Wandersman (2003) descriptions. I suggest we consider school-based personnel representation in various levels of the organization with increased involvement in the initial development and the implementation process of prevention programs, which links to Wandersman (2003) “user-based” or community centred model. This would enhance the organizational time given to leadership efforts, administrative
support, quality training and skill development, thus supporting the dissemination and potential sustainability of school-based initiatives.

Third, the evolution of the teacher facilitation role in a school-based prevention initiative occurred over a period of time and often included an adaptive role. This adaptive role was implemented in varying degrees within school settings dependent on the initiative of the teacher facilitator and the support structure in place in schools. As teacher facilitators become more skilled and confident in their role as program facilitator, they created some adaptations to the program manual exercises to reflect the idiosyncratic conditions in their local community. This supported development of the program that reinforced their specific community needs. Adapting exercises to include curriculum requirements enabled students to be graded for specific assignments. This was useful in that it encouraged classroom teachers to support prevention initiative delivery during regular classroom time. The linkages and interruptions of contextual factors provided in the examples above played an important role in enabling the dissemination and adaptation of the prevention programs in elementary schools.

Fourth, viewing this analysis through the lens of the Integrated Program framework, an investigation of the factors and linkages that facilitated or disrupted implementation processes was explored. Identifying critical motivating and contextual factors and the best possible combination of these factors remains a challenge for researchers, schools, and community agencies seeking to create maximum benefit for successful implementation of preventive programming. It is important for researchers to integrate these factors into an ecological approach which has occurred through this research study to improve the implementation process and enhance fidelity of a program.
My aim was to address the gap in the research literature that exists when it comes to formulating a holistic or ecological view of overall environmental factors in schools, homes, and in the community that impact the quality of implementation of school-based prevention programming, in particular, to develop a deeper understanding at the practice or operational level. Further study exploring the Adapted Integrated Model would be beneficial.

Previous implementation studies suggest there is little consideration given to exploring information about how a program is being implemented and whether fidelity is considered. In one review (Dane & Schneider, 1998) it was found that only 24% of the several hundred interventions reviewed measured fidelity. The weight of the evidence suggests that preventive interventions are not typically being implemented with fidelity in the field due to lack of administrative support, inadequate follow-up, a lack of collaboration with teachers at the school level, and a general lack of time (CEPRI, 2005; Joyce & Showers, 2002; Klingner et al., 2003; Spencer & Logan, 2003).

Cargo, Salsberg, et al (2006) suggest implementation fidelity should make a distinction between curriculum fidelity (or adherence) and role fidelity to the extent that the teacher's roles are congruent with the overall program objectives. School-based prevention programs need to be developed with practical considerations of teachers' and administrators' time to teach and deliver such programs and the resources available to support teachers and the school in the dissemination of these programs. Schools, and specifically principals, should play a significant role in supporting teacher facilitators' implementation of the program by ensuring that adequate resources, support, and quality training and supervision are available. This reinforces findings in the literature that
consistent support and leadership were of central importance to the implementation process (Elias, Zins, Grazcyk & Weissberg, 2003; Kam et al., 2003).

In order to develop and implement school-based prevention programs that are feasible to implement in real world settings, it is recommended that in addition to developing programs that are guided by theory, implemented with fidelity, and evaluated for program outcomes; program developers should also identify school, organizational and program factors that impede or enhance program implementation (Glasgow, Lichetenstein & Marcus, 2003; Hay, 1986).

My research suggests that the Adapted Integrated Program framework be further developed in order to enhance local efforts to implement evidence-based prevention programming. The study focused on the teacher facilitator role and important linkages and disruptions that impact the dissemination process. The Adapted Integrated Program framework acknowledges that other stakeholder points of view need to be considered and explored during the course of program dissemination. More specifically, schools appeared to function well or were able to create "linkages" in terms of receiving quality training and supervision, technical support and resources, but experienced challenges or "interruptions" in the first year of delivery of the program, garnering support from school board level, integrating the program with academic programming, and study participants voiced concerns about the difficult current economy. This study demonstrated that teacher facilitators were able to deliver an evidence-based prevention program in a school setting to a large diverse group of community students. By engaging partnerships, specifically teacher facilitators and social workers, specific needs and supports were identified in various school communities and linkages were created to support
dissemination of the prevention initiative. These partnerships helped to champion the innovation in school settings. By collaborating with teacher facilitators who had the skills and interests to take a leadership role in the dissemination process, they were able to "champion" the innovation to generate interest and enthusiasm to support and sustain the work of dissemination. The findings from this analysis will assist those considering designing or implementing prevention initiatives in elementary schools.

This Adapted Integrated Program framework is a resource for the development of a more integrated, comprehensive, holistic school-based program intended to enhance children's social and emotional learning skills. Beyond identifying a framework of elements for quality programming, this study can support educators in effectively implementing school-based prevention initiatives to support student's social and emotional health. I argue that the Adapted Integrated Program framework criteria be utilized to link planning and development, implementation and partnerships to create sustainable school-based social and emotional learning programs. Significant investment, both financial and in personnel into comprehensive innovations with specific programming, such as the Adapted Integrated Program is required to solidify a fragmented offering of school-based programming. It is hoped that the Adapted Integrated Program framework will provide the schools with a useful tool to evaluate their current environment and assess how contextual factors will affect prevention program implementation in their community. Although this research into the various factors affecting successful prevention programming implementation has provided a great deal of information, it is important to integrate these factors into a holistic model.

These conclusions provide important information which may be used to enhance
elementary school-based efforts to provide emotional and social learning programs. Ideally, this analysis will assist school board officials and administrators to identify and interpret both the concerns and extent of program implementation by teacher facilitators.

Finally, the study findings contribute to the importance of understanding the contextual and motivating factors for the implementation of prevention initiatives by teacher facilitators within school settings. Qualitative findings from this research study support conclusions from the prevention literature. Findings from this study provide additional criteria for quality teacher facilitator implementation of school-based prevention programs that include teacher's personal motivations; their skill level; and the degree of support received during the implementation process of the innovation which influences prevention program practices in elementary school-based settings. Implementation research has identified the need for adequate teacher facilitator training and continued support during implementation which was corroborated by the findings in this study. Relatively few studies have investigated the extent to which implementation factors are commonly faced within school settings (Sanetti & Kratochwill, 2008). This research addresses the dearth in social work literature related to the field of prevention programming in schools and promotes the use of social workers in school group work with both children and adults as a means to develop skills and enhance communication.

In closing, I am grateful for the time spent researching and writing this dissertation paper as it has given me the opportunity to learn, reflect, integrate new knowledge, and gain an appreciation for the complexities associated with the implementation processes in children's mental health services in the prevention field. In my career, I am fortunate to have the ability to combine my academic learning with the
applied practices of community mental health within an academic setting to effectively contribute to the advancement of research and program delivery in the prevention field of child-focused mental health. I look forward to continuing and expanding my program of research.
contextual implementation factors

APPENDIX ("A")

School Principal Recruitment Advertisement/Letter

[DATE]

[SCHOOL]

Dear Mr. / Ms. (Principal Name);

As the school Principal, we would like to ask you to share this invitation letter with your STEAM teacher facilitator. Your STEAM teacher facilitator is invited to participate in a research study being conducted by Alice Schmidt Hanbidge, a Wilfrid Laurier University PhD student. This project was reviewed and approved by the Research Ethics Board at Wilfrid Laurier University.

PURPOSE

The purpose of the study is to develop a greater understanding of the various factors that enhance implementation of the STEAM prevention program, more specifically;

1) the orientation, training and supervision of program facilitators, stakeholder support provided to the program, important program resources, and technical support factors.
2) the specific cultural, political, economic, and practice-based factors that influence and motivate program facilitators and program administrators to participate in implementing the emotion regulation prevention program, STEAM in elementary schools.

INFORMATION

We would like to ask your teacher facilitator to participate in an individual interview with Alice Schmidt Hanbidge to discuss their experiences with implementation challenges and successes. Individual interviews with teacher facilitators will be held in each of the 10 schools participating in this research. Up to 10 STEAM teacher facilitators will be interviewed in this research project. The interview will last about one to one-and-one-half hours in length. Data will only be collected by the principal researcher. The interview will be audio-taped and transcribed. All study participants have the right to decline recording of the interview. Handwritten notes of the interview will be kept by the interviewer for back-up purposes in case the recording device fails. A short follow-up interview, less than one half hour may be held for clarification purposes only. The data will be retained for 6 years. Once the data has been analyzed, the raw data will be disposed of by placing them in secure boxes within the Faculty of Social Work designated for materials awaiting shredding.

RISKS

There will no negative consequences for you, your school, or your teacher facilitator if they decide not to participate, or to withdraw after the beginning of the study. There may be a possibility of emotional discomfort or frustration to your Teacher facilitator when describing challenges they have experienced during the implementation process of the program. There is also the possibility that your Teacher facilitator may experience a loss of self-confidence if they are not able to answer some of the questions. At your request, questions can be repeated or deleted to meet study participant's comfort level.

BENEFITS

The benefit of participating in this study is that it will provide information to teachers, parents, school board, and people staffing STEAM about future program development and implementation for the STEAM program and other prevention initiatives.

CONFIDENTIALITY

What takes place in the interview and participant responses will be kept completely confidential. The data will be stored in a locked storage cabinet between the time it is collected and has been entered. Numerical codes will be applied to each file and the names will be blacked out. Any
numerically-coded files stored on the computer will be password protected. No names of study participants or of the schools they are employed by will be used in any of the written materials prepared. With their permission, quotes from individual study participants will be used as part of the written material but these quotes will only be identified by a code attached to the quotes. Participants will be given the opportunity to review a transcript of the interview before the data are analyzed and to revise or delete anything they have said.

PARTICIPATION
Your teacher facilitator's participation in this study is voluntary; they may decline to participate without penalty. If they decide to participate, they may withdraw from the study at any time without penalty and without loss of benefits to which they are otherwise entitled. If they withdraw from the study, their data will be removed from the study and destroyed. They have the right to omit any question(s)/procedure(s) they choose. There is no financial compensation for your teacher facilitator's participation.

FEEDBACK AND PUBLICATION
A copy of the thesis will be shared with you as well as any publications from the thesis. Results of this research will be communicated through academic, professional and community channels. Papers and workshops will be presented at professional conferences for mental health workers and teachers. Results will also be posted on the K-W Counselling website. The approximate date the thesis and feedback from the study will be available is June 2012.

CONTACT
This study has been reviewed and approved by the Research Ethics Board at Wilfrid Laurier University. If you have questions at any time about the study or the procedures, you may contact the principal researcher, Alice Schmidt Hanbidge, at Wilfrid Laurier University at 519-577-9192 or email the researcher at schm4470@wlu.ca. You may also contact the researcher's supervisor, Dr. Anne Westhues at (519) 884-1970, extension 5222 or awesthue@wlu.ca. If you feel you have not been treated according to the descriptions in this informed consent statement/information letter, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Robert Basso, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-1970, extension 5225, or rbasso@wlu.ca.

Please pass the Teacher facilitator letter of invitation to your teacher facilitator.
Thank you for your consideration.
Sincerely,

Alice Schmidt Hanbidge, M.S.W., R.S.W., PhD Candidate
Principal Researcher
APPENDIX ("B ")

Teacher Facilitator Information Letter

As the School STEAM Facilitator, you are invited to participate in a research study being conducted by a Wilfrid Laurier University PhD student, a project led by Alice Schmidt Hanbidge, a Wilfrid Laurier University PhD student. This project was reviewed and approved by the Research Ethics Board at Wilfrid Laurier University.

PURPOSE

The purpose of the study is to develop a greater understanding of the various factors that enhance implementation of the STEAM prevention program, more specifically;

1) the orientation, training and supervision of program facilitators, stakeholder support provided to the program, important program resources, and technical support factors.

2) the specific cultural, political, economic, and practice-based factors that influence and motivate program facilitators and program administrators to participate in implementing the emotion regulation prevention program, STEAM in elementary schools.

INFORMATION

Would you be willing to participate in an individual interview with Alice Schmidt Hanbidge to discuss your experiences with implementation successes and challenges? Individual interviews with teacher facilitators will be held in each of the 10 schools participating in this research. Up to 10 STEAM teacher facilitators will be interviewed in this research project.

The interview questions will focus on the process of delivery of the emotion regulation program STEAM. The interview will last about one to one-and-one-half hours in length. Data will only be collected by the principal researcher. The interview will be audio-taped and transcribed. All study participants have the right to decline recording of the interview. Handwritten notes of the interview will be kept by the interviewer for back-up purposes in case the recording device fails. A short follow-up interview, less than one half hour may be held for clarification purposes only. The data will be retained for 6 years. Once the data has been analyzed, the raw data will be disposed of by placing them in secure boxes within the Faculty of Social Work designated for materials awaiting shredding.

RISKS

There will no negative consequences for you if you decide not to participate, or to withdraw after the beginning of the study. There may be a possibility of emotional discomfort or frustration to you when describing challenges you have experienced during the implementation process of the program. There is also the possibility that you may experience a loss of self-confidence if you are not able to answer some of the questions. At your request, questions can be repeated or deleted to meet your comfort level.

BENEFITS

The benefit of participating in this study is that it will provide information to teachers, parents,
school board, and people staffing STEAM about future program development and implementation for the STEAM program and other prevention initiatives.

CONFIDENTIALITY

What takes place in the interview and participant responses will be kept completely confidential. The data will be stored in a locked storage cabinet between the time it is collected and has been entered. Numerical codes will be applied to each file and the names will be blacked out. Any numerically-coded files stored on the computer will be password protected. No names of study participants or of the schools they are employed by will be used in any of the written materials prepared. With your permission, quotes from individual study participants will be used as part of the written material but these quotes will only be identified by a code attached to the quotes. You will be given the opportunity to review a transcript of the interview before the data are analyzed and to revise or delete anything you have said.

PARTICIPATION

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study, your data will be removed from the study and destroyed. You have the right to omit any question(s)/procedure(s) you choose. You can end the conversation at any time. There is no financial compensation for your participation.

FEEDBACK AND PUBLICATION

A copy of the thesis will be shared with you as well as any publications from the thesis.

Results of this research will be communicated through academic, professional and community channels. Papers and workshops will also be presented at professional conferences for mental health workers and teachers. Results will also be posted on the K-W Counselling website. The approximate date the thesis and feedback from the study will be available is June 2012.

CONTACT

This study has been reviewed and approved by the Research Ethics Board at Wilfrid Laurier University. If you have questions at any time about the study or the procedures, you may contact the principal researcher, Alice Schmidt Hanbidge, at Wilfrid Laurier University at 519-577-9192 or email the researcher at schm4470@wlu.ca. You may also contact the researcher's supervisor, Dr. Anne Westhues at (519) 884-1970, extension 5222. If you feel you have not been treated according to the descriptions in this informed consent statement/information letter, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Robert Basso, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-1970, extension 5225, or rbasso@wlu.ca.

Thank you for your consideration.

Alice Schmidt Hanbidge M.S.W., R.S.W., PhD Candidate

Principal Researcher
CONSENT

I have read and understand the above information concerning the research project being done by Alice Schmidt Hanbidge, a PhD student at Wilfrid Laurier University on my experiences, both positive and challenging, with the implementation of the STEAM program. I have had the opportunity to ask any questions and receive additional details I want about the study. I understand that all information gathered on this project will be used for research purposes and will be considered confidential. Findings from the research will be in summary form only in any reports or publications. If there are any comments or information that I do not want the researcher to share or quote in a report or publication, I can identify this to the researcher during the interview. I understand that I may withdraw my consent to participate at any time without penalty, and that my data will be destroyed if I do.

Check √ all boxes that apply:

☐ I have received a signed copy of this form.

☐ I agree to participate in this study and to have the interview audio-taped.

☐ I give my permission for quotes from my interview to be used as part of the final written material.

Research Participant's Name: _________________________________

Research Participant's Signature: _______________________________

Researcher's Signature: _________________________________

Date: _______________________________
Thank you for meeting with me today. As you know, I am going to ask you some questions about your participation in the STEAM program in your school. To begin with, I would like to inform you about the purpose of this research project and the role of this interview in that process. I am here to collect information that will help direct us to meeting the needs of the elementary schools. This is not an assessment of you, your students/child, or your school. Please feel free to respond openly. We want you to share your positive experiences, as well as negative ones with the implementation challenges and successes of the STEAM program in your school. Your responses will be kept completely confidential. Data will be reported in summary form only. If it is useful, we may include quotations from an interview, but we will not reveal your name or other identifying characteristics without your written permission. If there are any comments or information that you do not want me to share or quote in a report or publication, you can identify this to me during the interview or when you review the interview transcript. You will have the opportunity to review the interview transcript prior to completion of the thesis. Do you have any questions?

I would like to clearly understand, from your perspective, why and how individual teacher facilitators and schools choose to implement the emotion management program, STEAM. The following interview questions will explore the process, including the training you have gone through from the decision to begin an emotion management program in your school until the present time.

Please tell me your name and your job title at your school.

How long have you been involved with the STEAM program?

1) Please tell me the story of how your school became involved in the STEAM program?

   **Probe:** Describe the steps your school took in implementing the STEAM program.

   **Probe:** What influenced your school's decision to implement the STEAM program?

2) What was it like for you to implement this program?

   **Probe:** Can you tell me about the high points of beginning this program?

   **Probe:** What were the most challenging parts you experienced when implementing the program?

   **Probe:** What key factors helped you in delivery of the STEAM program?

3) What motivated you to take on the role of Teacher facilitator?

   **Probe:** Did your personal values and beliefs play a role in your involvement in
the program?

4) What do program facilitators need to know before they begin to teach the STEAM curriculum?

_Probe:_ As an experienced Teacher facilitator, what do you recommend for the new Teacher facilitators?

_Probe:_ What can your school do to assist you, in your role as Teacher facilitator with the delivery of the STEAM program?

_Probe:_ How do other staff and teachers respond to you when you are delivering the program?

5) What resources are important to assist your organization and the school board implement the STEAM program?

_Probe:_ Resources, such as supplies, technical support, funding, staff support, etc.?

6) Are there teaching skills that you need to acquire or enhance in order to become a more effective facilitator of this program?

_Probe:_ How do you see your role as a Teacher facilitator involved with the STEAM program?

7) In your opinion, are there theoretical aspects of the STEAM program (i.e. cognitive behavioural [CBT], or emotion regulation, or child development theories) that are especially useful for Teacher facilitators to learn?

8) How was the facilitator training useful in assisting you to implement the STEAM program?

_Probe:_ What recommendations or suggestions would you have to improve the training?

9) What role does the economic (i.e. the local or Canadian economy, the school budget) or political climate, (i.e. who is in charge of the decision making process for school's access to resources) in a school play when implementing the STEAM program?

_Probe:_ Are there important factors to consider that impact the implementation process?

10) What key cultural factors are important to recognize when administering the program?

_Probe:_ What role does writing and speaking the English language play in the program?

_Probe:_ Are there any religious or cultural observances that impact the implementation of the STEAM program?
11) What would you recommend or suggest to other schools considering an emotion management program like STEAM?

Probe: Any recommendations or suggestion for your school board administrators about the STEAM program?

12) What recommendations or suggestions would you have for STEAM Program Administrators from the community mental health agency about the STEAM program?

13) Is there anything else you would like to say about your role as Teacher facilitator?

Thank you for sharing your thoughts and your time.
APPENDIX ("E")

Program Administrator Information Letter

You are invited to participate in a research study being conducted by Alice Schmidt Hanbidge, a Wilfrid Laurier University PhD student. This project was reviewed and approved by the Research Ethics Board at Wilfrid Laurier University.

PURPOSE
The purpose of the study is to develop a greater understanding of the various factors that enhance implementation of the STEAM prevention program, more specifically;

1) the orientation, training and supervision of program facilitators, stakeholder support provided to the program, important program resources, and technical support factors.

2) the specific cultural, political, economic, and practice-based factors that influence and motivate program facilitators and program administrators to participate in implementing the emotion regulation prevention program, STEAM in elementary schools.

INFORMATION
Would you be willing to participate in an individual interview with Alice Schmidt Hanbidge or Dr. Anne Westhues to discuss your experiences with implementation successes and challenges? Individual interviews will be held with both the STEAM Administrators, and with 10 of the STEAM Teacher facilitators, one in each of the 10 schools participating in this research.

The interview questions will focus on the process of delivery of the emotion regulation program STEAM. The interview will last about one hour to one-and-one-half hours in length. A short follow-up interview, less than one half hour may be held for clarification purposes only. Data will only be collected by Alice Schmidt Hanbidge and her research advisor, Dr. Anne Westhues. The interview will be audio-taped and transcribed. Handwritten notes of the interview will be kept by the interviewer for back-up purposes in case the recording device fails. You have the right to decline recording of the interview. The data will be retained for 6 years. Once the data has been analyzed, the raw data will be disposed of by placing them in secure boxes within the Faculty of Social Work designated for materials awaiting shredding.

RISKS
There will no negative consequences for you if you decide not to participate, or to withdraw after the beginning of the study. There may be a possibility of emotional discomfort or frustration to you when describing challenges you have experienced during the implementation process of the program. There is also the possibility that you may experience a loss of self confidence if you are not able to answer some of the questions. At your request, questions can be repeated or deleted to meet your comfort level.

BENEFITS
The benefit of participating in this study is that it will provide information to teachers, parents, school board, and people staffing STEAM about future program development and implementation for the STEAM program and other prevention initiatives.

CONFIDENTIALITY
What takes place in the interview and participant responses will be kept completely confidential.
The data will be stored in a locked storage cabinet between the time it is collected and has been entered. Numerical codes will be applied to each file and the names will be blacked out. Any numerically-coded files stored on the computer will be password protected. No names of study participants or of the schools they are employed by will be used in any of the written materials prepared. With your permission, quotes from individual study participants will be used as part of the written material but these quotes will only be identified by a code attached to the quotes. You will be given the opportunity to review a transcript of the interview before the data are analyzed and to revise or delete anything you have said.

PARTICIPATION
Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study, your data will be removed from the study and destroyed. You have the right to omit any question(s) or procedure(s) you choose. You may end the interview at any time. There is no financial compensation for your participation.

FEEDBACK AND PUBLICATION
A copy of the thesis will be shared with you as well as any publications from the thesis.

Results of this research will be communicated through academic, professional and community channels. Papers and workshops will also be presented at professional conferences for mental health workers and teachers. Results will also be posted on the K-W Counselling website. The approximate date the thesis and feedback from the study will be available is June 2012.

CONTACT
This study has been reviewed and approved by the Research Ethics Board at Wilfrid Laurier University. If you have questions at any time about the study or the procedures, you may contact the principal researcher, Alice Schmidt Hanbidge, at Wilfrid Laurier University at 519-577-9192 or email the researcher at schm4470@wlu.ca. You may also contact the researcher's supervisor, Dr. Anne Westhues at (519) 884-1970, extension 5222. If you feel you have not been treated according to the descriptions in this informed consent statement/information letter, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Robert Basso, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-1970, extension 5225, or rbasso@wlu.ca. Thanks for your consideration.

Alice Schmidt Hanbidge M.S.W., R.S.W., PhD Candidate
CONSENT

I have read and understand the above information concerning the research project being done by Alice Schmidt Hanbidge, a PhD student at Wilfrid Laurier University, supervised by Dr. Anne Westhues, on my experiences, both positive and challenging, with the implementation of the STEAM program. I have had the opportunity to ask any questions and receive additional details I want about the study. I understand that all information gathered on this project will be used for research purposes and will be considered confidential. Findings from the research will be in summary form only in any reports or publications. If there are any comments or information that I do not want the researcher to share or quote in a report or publication, I can identify this to the researcher during the interview. I understand that I may withdraw my consent to participate at any time without penalty, and that my data will be destroyed if I do.

Check ✓ all boxes that apply:

☐ I have received a signed copy of this form.

☐ I agree to participate in this study and to have the interview audio-taped.

☐ I give my permission for quotes from my interview to be used as part of the final written material.

Research Participant's Name: ________________________________

Research Participant's Signature: ________________________________

Researcher's Signature: ________________________________

Date: ________________
Thank you for meeting with me today. As you know, I am going to ask you some questions about your participation in the STEAM program in your role as Program Administrator. To begin with, I would like to inform you about the purpose of this research project and the role of this interview in that process. I am here to collect information that will help direct us to meeting the needs of the elementary schools. This is not an assessment of you, the STEAM schools, or your organization. Please feel free to respond openly. We want you to share your positive experiences, as well as negative ones with the implementation successes and challenges of the STEAM program. Your responses will be kept completely confidential. Data will be reported in summary form only. If it is useful, we may include quotations from an interview, but we will not reveal your name or other identifying characteristics without your written permission. If there are any comments or information that you do not want me to share or quote in a report or publication, you can identify this to me during the interview or when you review the interview transcript. You will have the opportunity to review the interview transcript prior to completion of the thesis. Do you have any questions?

I would like to clearly understand, from your perspective, how the emotion regulation training and supervision for all program facilitators assist them to perform their responsibilities in the delivery of the STEAM program. The following interview questions will explore the process you have gone through training and supervising all program facilitators, including Teacher facilitators, Social Work facilitators, and Intern facilitators.

Please tell me your name and your job title at your organization. How long have you been involved with the STEAM program?

1) Please tell me the story of how you became involved as a Program Administrator of the STEAM program.

2) What motivated you to take on the role of Program Administrator?

   *Probe:* Did your personal values and beliefs play a role in your involvement in the program?

3) Describe for me the role and key responsibilities of the STEAM Program Administrator?

   *Probe:* What do Program Administrators need to know about implementation of the STEAM program?

   *Probe:* What do Program Administrators need to know before training and supervising STEAM program facilitators?

4) What have you done in your role as Program Administrator to assist the schools and program facilitators in the delivery of the STEAM program?

   *Probe:* How do other staff and teachers respond to you when you are in the schools sharing information and offering support about the program?

5) What challenges have you experienced with schools and program facilitators facing
implementing the STEAM program in the first year?

Probe: What would you recommend or suggest to other schools or communities considering implementation of a prevention program like STEAM?

6) From your experience, what are the key challenges for the Program Administrator in negotiating relationships with schools, Teacher facilitators, Social Work Facilitators, Intern Facilitators, and your organization?

7) What resources are important to assist your organization and the school board to implement the STEAM program?

Probe: Resources, such as supplies, technical support, funding, staff support, etc?

8) From your experience, what do Teacher facilitators need to know before they begin to teach the STEAM curriculum? What do Social Work facilitators and Intern facilitators need to know before they begin facilitation of the program?

Probe: What kind of professional development would you suggest for Teacher facilitators to help them more effectively deliver the STEAM program?

Probe: Are there teaching skills that you would recommend for Teacher facilitators to acquire or enhance in order to become a more effective facilitator of this program?

9) In your opinion, are there theoretical aspects of the STEAM program (i.e. cognitive behavioural [CBT], emotion regulation, or child development theories) that are especially useful for program facilitators to learn?

10) How is the facilitator training useful in assisting your facilitators to implement the STEAM program?

Probe: What recommendations or suggestions would you have to improve the facilitator training?

11) How is the supervision useful in assisting the Teacher facilitators, Social Work Facilitators, and Intern Facilitators to implement the STEAM program? Probe: What recommendations or suggestions would you have to improve the supervision role?

12) What overall recommendations or suggestions would you have for schools implementing the STEAM program?

13) Any recommendations or suggestion for the school board administrators about the STEAM program?

14) What role does the economic (i.e. the local or Canadian economy, the school budget) or political climate (i.e. who is in charge of the decision making process for school's access to resources, the perception of school-based prevention programming) in a community play when implementing the STEAM program?
Probe: Are there important factors to consider that impact the implementation process?

15) What key cultural factors are important to recognize when administering the program?

Probe: What role does writing and speaking the English language play in the delivery of the program?

Probe: Are there any religious or cultural observances that impact the implementation of the STEAM program?

16) Is there anything else you would like to say about your role as Program Administrator?

Thank you for sharing your thoughts and your time.
APPENDIX ("H")

Stage 1 - Research Questions

The purpose of the research study is to explore and understand STEAM’s school-wide educational component and to answer the following questions:

(1) what motivates individual schools to choose to implement the school-wide educational component of STEAM?
(2) what are the processes and steps involved in implementation?, and
(3) what are the challenges, benefits and effectiveness of the program?

The study will assess how the school-wide component is being implemented and is operating, to determine the bridges and barriers that are present during the implementation process. Further, it will allow us to understand the steps taken to implement the STEAM program and determine which activities and programs teachers and principals believe have the greatest impact in realizing positive outcomes for children and schools.
APPENDIX("I")

Stage 1 - Teacher Facilitator Interview Questions

Thank you for meeting with me today. As you know, we are going to ask you some questions about your participation in the S.T.E.A.M. program in your school. I am here to collect information that will help direct us to meeting the needs of the elementary schools. This is not an assessment of you, your students/child, or your school. Please feel free to respond openly. We want you to share your positive experiences, as well as negative ones. Your responses will be kept completely confidential. Data will be reported in summary form only. If it is useful, we may include a quotation from an interview, but we will not reveal your name or other identifying characteristics without your written permission. Do you have any questions?

1. What do you hope S.T.E.A.M. school-wide will offer over and above what other programs offer?
2. Discuss who is targeted for services and procedures for recruiting desired participants.
   - Who is S.T.E.A.M. actually serving? What are their characteristics?
   - What groups of people/classrooms does S.T.E.A.M. NOT serve?
   - How many participants have been served by the program?
3. Discuss services/activities offered by S.T.E.A.M.
   - Who delivers each of the different services/activities provided by the program?
   - How are the activities consistent with the school needs?
   - Is it clear how program activities will lead to the accomplishment of each of the program goals?
   - Does S.T.E.A.M. run continuously or just during certain times of the year?
4. What individuals or groups are key in implementing program activities?
   - How do they feel about the program? Why did they become involved?
5. How much of staff time is dedicated to responsibilities of the program?
   - Do outside individuals, such as volunteers, also participate in the program?
   - How many are there? What are their roles?
6. Discuss the major characteristics of the site. Is the site a pleasant place to be?
7. Describe how the program operates (e.g. how services are offered).
8. What obstacles have you encountered in the process of participant recruitment?
9. What factors contributed to continued participation?
10. Describe the different attitudes of participants throughout the program.
11. Describe various participant reactions to the materials or curriculum.

12. Are there any differences in receptiveness toward S.T.E.A.M. based on gender, age, ethnicity, SES, etc? If so, what are they and how were they remedied?

13. What accountability issues affect the program?

14. Has S.T.E.A.M. been implemented as planned? If not, what happened?
   - Have some components been dropped, modified, or added?
   - Have critical activities occurred daily?

15. Are there any components or activities that need to be modified?

16. What are your beliefs about the role of teachers and schools in prevention efforts?

17. What additional prevention activities and/or programs is your school offering?
APPENDIX ("J")

Principal Information Letter

As the School Principal, you are invited to participate in a research study being conducted by a Wilfrid Laurier University PhD student, a project led by Alice Schmidt Hanbidge, a Wilfrid Laurier University PhD student. This project was reviewed and approved by the Research Ethics Board at Wilfrid Laurier University.

PURPOSE
The purpose of the study is to develop a greater understanding of the various factors that enhance implementation of the STEAM prevention program, more specifically;

1) the orientation, training and supervision of program facilitators, stakeholder support provided to the program, important program resources, and technical support factors.

2) the specific cultural, political, economic, and practice-based factors that influence and motivate program facilitators and program administrators to participate in implementing the emotion regulation prevention program, STEAM in elementary schools.

INFORMATION
Would you be willing to participate in an individual interview with Alice Schmidt Hanbidge to discuss your experiences with implementation successes and challenges? Individual interviews with school Principals will be held in 4 schools participating in this research.

The interview questions will focus on the process of delivery of the emotion regulation program STEAM. The interview will last about one to one-and-one-half hours in length. Data will only be collected by the principal researcher. The interview will be audio-taped and transcribed. All study participants have the right to decline recording of the interview. Handwritten notes of the interview will be kept by the interviewer for back-up purposes in case the recording device fails. A short follow-up interview, less than one half hour may be held for clarification purposes only. The data will be retained for 6 years. Once the data has been analyzed, the raw data will be disposed of by placing them in secure boxes within the Faculty of Social Work designated for materials awaiting shredding.

RISKS
There will no negative consequences for you if you decide not to participate, or to withdraw after the beginning of the study. There may be a possibility of emotional discomfort or frustration to you when describing challenges you have experienced during the implementation process of the program. There is also the possibility that you may
experience a loss of self-confidence if you are not able to answer some of the questions. At your request, questions can be repeated or deleted to meet your comfort level.

**BENEFITS**

The benefit of participating in this study is that it will provide information to teachers, parents, school board, and people staffing STEAM about future program development and implementation for the STEAM program and other prevention initiatives.

**CONFIDENTIALITY**

What takes place in the interview and participant responses will be kept completely confidential. The data will be stored in a locked storage cabinet between the time it is collected and has been entered. Numerical codes will be applied to each file and the names will be blacked out. Any numerically-coded files stored on the computer will be password protected. No names of study participants or of the schools they are employed by will be used in any of the written materials prepared. With your permission, quotes from individual study participants will be used as part of the written material but these quotes will only be identified by a code attached to the quotes. You will be given the opportunity to review a transcript of the interview before the data are analyzed and to revise or delete anything you have said.

**PARTICIPATION**

Your participation in this study is voluntary; you may decline to participate without penalty. If you decide to participate, you may withdraw from the study at any time without penalty and without loss of benefits to which you are otherwise entitled. If you withdraw from the study, your data will be removed from the study and destroyed. You have the right to omit any question(s)/procedure(s) you choose. You can end the conversation at any time. There is no financial compensation for your participation.

**FEEDBACK AND PUBLICATION**

A copy of the thesis will be shared with you as well as any publications from the thesis. Results of this research will be communicated through academic, professional and community channels. Papers and workshops will also be presented at professional conferences for mental health workers and teachers. Results will also be posted on the K-W Counselling website. The approximate date the thesis and feedback from the study will be available is June 2011.

**CONTACT**

This study has been reviewed and approved by the Research Ethics Board at Wilfrid Laurier University. If you have questions at any time about the study or the procedures, you may contact the principal researcher, Alice Schmidt Hanbidge, at Wilfrid Laurier University at 519-577-9192 or email the researcher at schm4470@wlu.ca. You may also contact the researcher’s supervisor, Dr. Anne Westhues at (519) 884-1970, extension 5222. If you feel you have not been treated according to the descriptions in this informed consent statement/information letter, or your rights as a participant in research have been violated during the course of this project, you may contact Dr. Robert Basso, Chair, University Research Ethics Board, Wilfrid Laurier University, (519) 884-1970, extension 5225, or rbasso@wlu.ca.

Thank you for your consideration.  
Alice Schmidt Hanbidge M.S.W., R.S.W., PhD Candidate  
Principal Researcher
APPENDIX ("K")

Principal Consent Form

CONSENT

I have read and understand the above information concerning the research project being done by Alice Schmidt Hanbidge, a PhD student at Wilfrid Laurier University on my experiences, both positive and challenging, with the implementation of the STEAM program. I have had the opportunity to ask any questions and receive additional details I want about the study. I understand that all information gathered on this project will be used for research purposes and will be considered confidential. Findings from the research will be in summary form only in any reports or publications. If there are any comments or information that I do not want the researcher to share or quote in a report or publication, I can identify this to the researcher during the interview. I understand that I may withdraw my consent to participate at any time without penalty, and that my data will be destroyed if I do.

Check ✓ all boxes that apply:

☐ I have received a signed copy of this form.

☐ I agree to participate in this study and to have the interview audio-taped.

☐ I give my permission for quotes from my interview to be used as part of the final written material.

Research Participant’s Name: _______________________________

Research Participant’s Signature: ___________________________

Researcher’s Signature: ________________________________

Date: ____________________
Stage 1 - School Principal Interview Questions

Thank you for meeting with me today. As you know, we are going to ask you some questions about your participation in the S.T.E.A.M. program in your school. I am here to collect information that will help direct us to meeting the needs of the elementary schools. This is not an assessment of you, your students/child, or your school. Please feel free to respond openly. We want you to share your positive experiences, as well as negative ones. Your responses will be kept completely confidential. Data will be reported in summary form only. If it is useful, we may include a quotation from an interview, but we will not reveal your name or other identifying characteristics without your written permission. Do you have any questions?

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18. What obstacles have you encountered in the process of participant recruitment?
19. What factors contributed to continued participation?
20. Describe the different attitudes of participants throughout the program.
21. Describe various participant reactions to the materials or curriculum.

22. Are there any differences in receptiveness toward S.T.E.A.M. based on gender, age, ethnicity, SES, etc? If so, what are they and how were they remedied?

23. What accountability issues affect the program?

24. Has S.T.E.A.M. been implemented as planned? If not, what happened?

25. Have some components been dropped, modified, or added?

26. Have critical activities occurred daily?

27. Are there any components or activities that need to be modified?

28. What are your beliefs about the role of teachers and schools in prevention efforts?

29. What additional prevention activities and/or programs is your school offering?

Thank you for sharing your thoughts and your time.
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Contextual Implementation Factors


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Table 1 - Aspects to Successful Implementation

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### Contextual Implementation Factors

| Employment | Forgatch et al. (2005), Cook et al. (2000), Cook et al. (1999). |
| Age | Forgatch et al. (2005). |
| Ethnicity | Forgatch et al. (2005), Cook et al. (2000), Cook et al. (1999), August et al. (2006). |
| Key Components | August et al. (2006), Cook et al. (1999). Forgatch et al. (2005). |
| Low Attendance | August et al. (2006). |
| Lack of Transportation | August et al. (2006). |
|---|---|---|
| Onsite | | Ialongo et al. (1999), Cook et al. | Kam et al. |
|----------------------|-----------------------------------------------------------|----------------------------|
| Mentoring            | August et al. (2003).                                     |                             |
| Student Peer Mediator | Cook et al. (2000) Cook et al. (1999).                  |                             |

**Community**

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**Method of Assessing Tools / Measures to Implementation**

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Table 2 - Emotion Regulation Prevention Program Review

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<td>F - program attendance/lessons taught</td>
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<td>A, B, C, E, F, H, Decreased aggression</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent and teacher involvement added positive changes to children's skill level</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 GBG; Evertson, Emmer, Sanford, & Clements, 1983
2 CCC; Macgowan, Nash, & Fraser, 2002
3 CBCL; Achenbach & Edelbrock, 1991
4 SEQ; Crick & Grotpeter, 1996
5 SLA; adaptation of Dodge's Home Interview for attributional bias (Dodge, 1980)
Greenberg, Kusche, Cook, & Quamma; 1995

| Exp N=130 Control N=156 Grades 2 & 3 | PATHS (Promoting Alternative THINKing Strategies) ABCD (affective-behavioural-cognitive-dynamic) model6 | 60 lessons at 3x weekly teacher lessons for classroom management | Individual child interview7 Teacher behaviour checklist8 | Effective for both low risk and high needs children Improvement in range of emotions vocabulary & fluency in discussion emotional experiences Efficacy in management of emotions | A, B, C, G, H, I

Kamps, Kravits, Rauch, Kamps & Chung; 2000

| N= 38 Ages 5-13 | ED Prevention Program9 Social Skills, Peer tutoring & Classroom Management (no theory listed) | 1x weekly for 30 minutes 2x weekly peer tutoring10 classroom management program teacher lessons individual behaviour management plan longitudinal study over 4 years | Teacher behaviour report form11 Observation data Teacher interviews | Reduced student behaviour problems Increased student academic performance Lower aggression levels Decrease in out-of-seat behaviours Lack of improvement in negative verbal behaviours | A, B, C, D, F, G, H, I

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6 Greenberg & Kusche, 1993
7 KAI-R; Kusche, Greenberg, & Beilke, 1988
8 CBCL-TRF; Achenbach, 1991
9 Emotional Disturbance
10 Classwide peer tutoring; Greenwood, Delquadri, & Carta, 1997
11 TBRF; Kamps, Kravits, Rauch, Kamps, Chung, 2000
<table>
<thead>
<tr>
<th>Study</th>
<th>Design/Participants</th>
<th>Intervention Description</th>
<th>Outcomes</th>
<th>Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kjobli &amp; Sorlie; 2008</td>
<td>Universal, Selected, Indicated</td>
<td>N=37, Ages 3-12 (73% between 6-12 years) Early Intervention for Children at Risk for Developing Behavioural Problems (EICR) Promoting social competence Preventing &amp; treating problem behaviour (no theory listed)</td>
<td>Decreased problem behaviour within classroom Improved student relations</td>
<td>A, B, C, D, E</td>
</tr>
</tbody>
</table>

12 SSBD: Systemic Screening for Behaviour Disorders (Walker & Severson, 1992)
| Pepler, King, Craig, Byrd, Bream; 1995 | N= 74  
SST=40 children  
Control=34  
Ages 6-12 | The Earls court Social Skills Group  
Program13  
Social learning theory  
Social-cognitive theories | 75 minute social skills sessions weekly for  
12-15 weeks  
parent groups  
home work assignments  
classwide teaching  
teacher involvement schoolwide activities | Child Behaviour Checklist(CBCL)  
Teacher's Report Form  
Child report14 | Decrease in aggressive behaviour problems  
rated by both parents and teachers  
No improvement in behaviour as rated by peers | A, B, C, D, E, F |
---|---|---|---|---|---|---|
Selected  
Indicated

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13 (ESSGP)  
14 Revised Class Play Method of Peer Assessment (Masten, Morison, & Pelligrini, 1985)