This research was designed to examine the constructs of collective efficacy and readiness as well as to examine the relationship between these constructs. Factor analysis of archival data collected from school staff at local elementary and middle schools resulted in a two factor solution for collective efficacy while a meaningful reduction of readiness to one or more constructs was not possible. Additional analyses found that school willingness and timing were significantly related to group competence, one factor of collective efficacy. This research suggests that readiness is a complex construct, interventions designed to increase the collective efficacy and/or capacity of organizations may decrease implementation failure, and greater attention should be paid to the timing of the implementation of evidence-based programs. Suggestions for future research include augmenting the readiness measure and the use of research designs that include a criterion against which to measure both collective efficacy and readiness.
SUPPORTING SUCCESSFUL IMPLEMENTATION OF EVIDENCE-BASED PROGRAMS:
ASSESSING READINESS AND COLLECTIVE EFFICACY

A Thesis

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Introduction

By increasing the understanding and measurement of readiness and collective efficacy, implementation failure can be reduced by strengthening the ability to better select sites in which to implement evidence-based programs and to increase capacity in organizations that are implementing such programs (Elliot & Mihalic, 2004). The goal of this research is to examine the constructs of collective efficacy and readiness as well as the relationship between these two constructs. This paper discusses implementation failure; the relationships among capacity, collective efficacy, and readiness; a description of research related to collective efficacy and readiness; and will end with discussion and implications of the research findings.

Implementation failure occurs when programs that are effective under controlled conditions are ineffective when implemented in real world settings. According to Elliott and Mihalic (2004), “the new frontier in violence, substance abuse and delinquency prevention, and intervention research involves building a scientific knowledge base for the replication and dissemination of those programs that have been demonstrated to be effective” (p. 47). Unfortunately, few programs identified as model programs have been implemented successfully on a large scale because most sites are not initially prepared to implement and sustain model programs with fidelity (Elliott & Mihalic, 2004). Research on implementation failure is primarily related to the conditions of the organization or community. The reasons for implementation failure can largely be categorized as related to the capacity to absorb an intervention (Chinman et al., 2005; Elliot & Mihalic, 2004; Miller & Shinn, 2005) and readiness (Elliott & Mihalic, 2004; Greenberg, 2004; Robbins, Collins, Liaupsin, Illback, & Call, 2003).

Capacity can be defined as an organization’s ability to meet the requirements necessary to implement a program, and includes skills, motivations, attitudes, knowledge, and resources (Chinman, Imm, & Wandersman, 2004). Additionally, capacity can be categorized by type (general and innovation-specific) and level (individual, organizational, and community) (Flaspohler, Duffy, Wandersman, Stillman, & Maras, in press). General capacities refer to the skills or characteristics of the individual and the overall functioning of a community or organization that is related to the ability to implement any innovation (Flaspohler et al., in press). Innovation-specific capacities are related to the ability to implement a specific innovation. These include motivation and skills at the individual level and human, technical, and fiscal conditions at the organizational level (Livet & Wandersman, 2005). For the purposes of this research,
capacity is defined as an organizational level construct that includes skills, motivations, attitudes, knowledge, and resources that may be either general or innovation-specific.

Innovation-specific motivations and attitudes of capacity can be measured by collective efficacy, an organizational level construct. Collective efficacy is defined as “a group’s shared belief in its conjoint capabilities to organize and execute the courses of action required to produce given levels of attainments” (Bandura, 1997, p. 477). Additionally, collective efficacy is context specific because it measures a shared belief of attaining success in relation to a specific job in a specific situation, rather than measuring a general trait.

Research on collective efficacy began as an extension of Albert Bandura’s research on self-efficacy. Both forms of efficacy are shaped by four main sources of information. These sources are mastery experience, vicarious experience, verbal and other forms of social persuasion, and physiological and affective states (Bandura, 1982). In contrast to collective efficacy’s group focus, self efficacy is about an individual’s belief in his or her capability to perform the actions necessary to reach a desired goal (Bandura, 1997). The differentiation of self and collective efficacy has been supported by studies demonstrating that collective efficacy and self-efficacy of group members are related but distinct constructs (Tindale, Meisenhelder, Dykema-Engblade, & Hogg, 2001). One study that provides an example of this differentiation involved collegiate hockey teams. The members’ self-efficacy beliefs and beliefs about the team’s collective efficacy were measured. Early in the season the average of the members’ self-efficacy was the better predictor of team performance; however at the end of the season, collective efficacy was the better predictor of team performance (Feltz & Lirgg, 1998). This suggests that accurate assessments of collective efficacy may take time to develop.

Collective efficacy is important to understand because many of life’s challenges are related to problems that require people to work together to solve them. The individuals who make up families, communities, organizations, and nations must work together to face and solve these problems. The strength of these groups resides partly in the individual members’ sense of collective efficacy that problems can be effectively solved and their lives improved through the actions of the group (Bandura, 1997). Collective efficacy influences what people choose to do as a group, the amount of effort they put into it, and their persistence when the group effort does not produce results (Bandura, 1982).
Studies have demonstrated the relationships between both effort and persistence, or staying power, with collective efficacy. The relationship between effort and collective efficacy has been measured for performance in a business setting. One study found that higher collective efficacy was related to higher levels of performance in self-managed work teams in a manufacturing setting (Little & Madigan, 1997). In elite volleyball teams, high collective efficacy has been related to staying power (Spink, 1990). After experiencing a loss, teams that were rated high in collective efficacy outperformed teams rated low in collective efficacy. Additionally, teams rated high in collective efficacy prior to a tournament finished significantly higher in the tournament than teams rated low in collective efficacy.

Collective efficacy is a context specific construct that measures a group’s shared belief of being successful on a specific task (Bandura, 1997) and has been empirically linked to effort and persistence (Little & Madigan, 1997; Spink, 1990). In this research, collective efficacy is used to measure motivations and attitudes of innovation-specific capacity, which is one category of reasons for implementation failure (Chinman et al., 2005; Elliot & Mihalic, 2004; Miller & Shinn, 2005). The second category of reasons for implementation failure is readiness (Elliott & Mihalic, 2004; Greenberg, 2004; Robbins et al., 2003). Understanding readiness is important because the degree or level of readiness of an organization for a specified change has the potential to either help or hinder the change process.

In general, readiness is considered to include the dynamics that support or impede the adoption of a new idea. Readiness is a complex construct and as a nascent area of research there is a lack of convergence in the literature on a single definition of readiness as well as definitional overlap with other constructs. The remainder of this section will focus on how research on readiness occurs at three levels, how multiple areas of research have influenced the development of measures and theories of readiness, and how various types of innovations and organizations are targeted in research and measurement development at the organizational level.

Research on readiness takes place on three different levels – individual, organizational, and community. It is not surprising that readiness is defined differently across the three levels, because groups function differently than individuals and different factors are present at each level (Donnermeyer, Plested, Edwards, Oetting, and Littlethunder, 1997). However, within each level there is still variability in the definition of readiness.
Multiple areas of research have been credited with influencing the development of measures and theories of readiness. For example, Davis and Salasin (1975) proposed a model to assess organizational readiness that is a translation of a behavioral change model. Community development models of the social action process (Beal as cited in Donnermeyer et al., 1997) and the innovation of decision-making process (Rogers as cited in Donnermeyer et al., 1997) are credited as providing the theoretical foundation for a community readiness scale. Meanwhile, the transtheoretical model of change, which was developed initially to describe the individual change process, has been translated and applied to organizational change (Levesque, Prochaska, & Prochaska, 1999). It also was noted by Flaspohler, Anderson-Butcher, Bean, Burke, and Paternite (2006) that, in general, readiness is rooted in the literature on planned change, communication and diffusion of innovations, and knowledge transfer and change. This variety of influences may be contributing to the lack of a common language as well as differences in the conceptualization of readiness.

Even within research at one level, the organizational level, there are multiple types of innovations and organizations that serve as the focus of the research on readiness and/or the development of measurement tools. For example, research includes readiness to adopt innovations such as integrated service delivery at a university (Levesque, Prochaska, & Prochaska, 1999), continuous quality improvement in health care (Levesque et al., 2001), a comprehensive mental health innovation in public schools (Robbins et al., 2003), as well as the development of a model to assess organizational readiness not specific to a type of organization or innovation (Davis & Salasin, 1975).

As can be seen, defining readiness can be difficult because there is no convergence on a single definition of readiness in the literature. This may be due in part to readiness being researched and measured at three levels, the variety of influences on the development of measures and theories of readiness, and the diversity of innovations and organizations included in research on organizational readiness. For the purposes of the current research, readiness is considered to be an organization’s level of preparedness to successfully implement an innovation (program or initiative) and includes motivations, attitudes, knowledge, and resources.

One model for assessing organizational readiness is the A VICTORY model (Davis & Salasin, 1975). This is a translation of a behavioral change model. The acronym A VICTORY stands for the eight dimensions that are assessed – ability, values, ideas, circumstances, timing,
obligation, resistances, and yield. In one study, the A VICTORY model was used to assess readiness of public schools applying to participate in a federally funded project to implement and successfully use a comprehensive mental health innovation. This study found that schools selected for participation based on demonstrated readiness received significantly higher implementation scores compared to schools that volunteered to participate (Robbins et al., 2003).

The A VICTORY model was also used to assess readiness for participation in the Ohio Community Collaboration Model for School Improvement (OCCMSI) initiative (Anderson-Butcher et al., 2004), and later to assess readiness of the schools selected as pilots. One example of the usefulness of assessing readiness in the pilot schools involved a school district’s misperceptions that the staff was not ready to participate in the project, while the data gathered from the staff at this school challenged that perception by indicating that most of the respondents were “ready” to implement the model. This provided valuable information that changed the way in which the staff was involved in the planning and implementation of the OCCMSI initiative (Flaspohler et al., 2006).

The capacity to absorb an intervention (Chinman et al., 2005; Elliot & Mihalic, 2004; Miller & Shinn, 2005) and readiness (Elliott & Mihalic, 2004; Greenberg, 2004; Robbins et al., 2003) are broad categories that encompass many of the reasons that have been given for implementation failure. As noted elsewhere (e.g., Flaspohler et al., in press), there is often similarity in the definitions of capacity and readiness. A key difference between these two constructs is that readiness is specific to the adoption of an innovation while capacity is related to both general and innovation-specific factors.

**Rationale and Hypotheses**

Collective efficacy is the degree to which individuals in a group believe they are capable of working or acting together to reach a goal (Bandura, 1977) and encompasses both effort and persistence. Studies of this construct have been performed in a number of settings including business (e.g., Little & Madigan, 1997), sports (e.g., Feltz & Lirgg, 1998), and education (e.g., Goddard, Hoy, & Woolfolk Hoy, 2000). Research has linked both effort and persistence with higher levels of collective efficacy (e.g., Little & Madigan, 1997; Spink, 1990).

Readiness has been studied in a variety of settings and at multiple levels. At the level of organizations, readiness has been found to allow for smoother entry and role creation for prevention workers entering schools (MacDonald & Green, 2001) and to be useful in selecting
schools most prepared for the implementation of specific programs or projects (Flaspohler et al., 2006; Robbins et al., 2003). Readiness has been noted as an indicator of whether or not an innovation will be effectively implemented and sustained in schools (Fullan, Miles, & Taylor, 1980). Therefore, assessing readiness as part of the decision-making process of whether or not to adopt a new program or initiative is an important consideration.

Within this research, readiness is defined as an organization’s level of preparedness to successfully implement an innovation and includes motivations, attitudes, knowledge, and resources. Collective efficacy measures the innovation-specific motivations and attitudes of capacity. Therefore, by increasing the understanding and measurement of readiness and collective efficacy as well as the relationship between these two constructs, implementation failure can be reduced by strengthening the ability to better select sites to implement evidence-based programs and to build capacities in organizations that are implementing such programs (Elliot & Mihalic, 2004). While some efforts to assess readiness and collective efficacy exist, more research is needed. The current research was an attempt to increase the understanding of collective efficacy and readiness, as well as the relationship between these two constructs, and is the first time these constructs have been examined in parallel.

This research was guided by three research questions. The first research question asked what are the key attributes of collective efficacy? It was hypothesized that, consistent with previous research, the construct of collective efficacy can be represented by a single construct. This was tested through principal components and maximum likelihood factor analyses. Research question 2 asked what are the key attributes of readiness? It was hypothesized that, consistent with the theoretical conceptualization of readiness, this construct can be represented by one or more constructs. This is a nascent area of research, as indicated previously, making this exploratory research because of the lack of a common definition of readiness in the literature. The hypothesis for research question 2 was tested through principal components and maximum likelihood factor analyses. Research question 3 asked what is the relationship between collective efficacy and readiness? It was hypothesized that collective efficacy and readiness are related because of the contribution of capacity and readiness to implementation failure and the relationship between capacity and collective efficacy. This hypothesis was tested through the use of Pearson product moment correlation and standard multiple regressions.
Method

Data Archive. This research examined archival data collected as part of the Evidence-Based Practices for Schoolwide Prevention Programs (EBP-SPP) initiative. The EBP-SPP, funded by the Health Foundation of Greater Cincinnati, provided funding and support to schools in Southwest Ohio. Through a competitive grant process, schools were selected to participate in a multi-year initiative geared to assure successful implementation of universal prevention programs in elementary and middle schools. To apply, interested schools attended an informational session and submitted an application that included a survey of the school staff. In the first year, the grant supported the selected schools as they conducted needs and resources assessment, program review and selection, and assessment of readiness for change. In the second year, the same schools applied for additional support to assist them in implementing their selected evidence-based prevention program. Data collected at three distinct points in time are used in this research. At each collection point participants completed a variety of measures, including those used in this research.

Study 1 utilized data collected in March 2006 as part of the initial EBP-SPP grant application process. This data included a measure of collective efficacy. Study 2 utilized data collected in January 2007 as part of the second round of initial EBP-SPP grant application process. This data included a readiness measure. Study 3 utilized data collected in October 2006 from schools that were selected as grantees to assist them in their planning process and included both collective efficacy and readiness measures.

Participants. Study 1 included data from 444 participants representing 13 schools. This included 309 teachers, 24 administrators, nine nurses/nurse practitioners/health aides, 27 support staff (e.g., counselor, psychologist, social worker), 73 other staff, and two participants of unknown role.

Study 2 included data from 497 participants representing 13 schools. No schools are represented in both Studies 1 and 2. These participants included 375 teachers, 21 administrators, six nurses/nurse practitioners/health aides, 20 support staff (e.g., counselor, psychologist, social worker), and 75 other staff.

Study 3 included data from 125 participants representing five schools. These five schools are also represented in Study 1. These participants included 78 teachers, seven administrators,
three nurses/nurse practitioners/health aides, seven support staff (e.g., counselor, psychologist, social worker), 25 other staff, and five of unknown role.

**Procedures.** The data used in Studies 1 and 2 was collected via an online survey website. To ensure that participation was restricted to individuals from pre-applicant schools only, two methods were used. First, the link for the survey was sent to the school’s Health Foundation liaison, who was then responsible for sending it to their school staff. Second, prior to receiving the link, each liaison estimated the number of responses anticipated from the school. Based on a comparison of the number of completed surveys and the estimates provided by the liaison, no schools were suspected of distributing the link beyond their school staff. Study 3 uses data that was collected using a paper and pencil format.

Collective efficacy is measured in both Studies 1 and 3 using the Collective Efficacy Scale Short Form (Goddard, 2002). This is a 12-item measure that is a shortened version of the original 21-item Collective Efficacy Scale (Goddard, Hoy, & Woolfolk Hoy, 2000). Both are designed to measure the collective efficacy of teachers and employ a 6-point Likert scale from “strongly agree” (1) to “strongly disagree” (6). Analysis of the Collective Efficacy Scale Short Form has shown it to have high internal consistency ($a = .94$), to be highly correlated with the 21-item scale ($r = .98$), and to indicate a positive relationship in between-school variability in student mathematics achievement based upon multilevel tests of predictive validity. These results provide strong evidence that the Short Form is equally as effective as the 21-item scale.

The 12 items on the Collective Efficacy Scale Short Form are classified into one of two categories, group competence and analysis of the teaching task, each containing six items. Group competence (GC) relates to judgments about the capabilities faculty bring to teaching, including teaching methods, skills, training, and experience. Two of these items are “Teachers in this school are able to get through to the most difficult students” and “Teachers in this school believe that every child can learn.” Analysis of the teaching task (TA) relates to perceptions of the opportunities and constraints inherent in the task. More specifically, TA is related to student learning, including the abilities and motivations of students and the perceptions of the support provided by the students’ home and community. Two of these items are “Students here just aren’t motivated to learn” and “Learning is more difficult at this school because students are worried about their safety” (Goddard, 2002). The dual approach to assessing collective efficacy in this measure is based on the model of teacher efficacy proposed by Tschannen-Moran,
Woolfolk Hoy, and Hoy (1998). This model acknowledges that collective efficacy depends on both the perceived competence to perform a task and the context in which the task takes place. This is consistent with Bandura’s conceptualization that collective efficacy is related to perceptions of the attainment of a task and is context specific (1997). Goddard (2002) reported extracting a one factor solution from the Collective Efficacy Scale Short Form using principal axis factor analysis.

There were two changes made to the Collective Efficacy Scale Short Form (Goddard, 2002) for use on the EBP-SPP survey. First, the wording of one question was changed while retaining the content, with this change presumably being made to reduce the impact of the item by not beginning with the words “drug and alcohol abuse.” The original wording of this item was “Drug and alcohol abuse in the community make learning difficult for students here” and the modified wording is “Social problems such as drug and alcohol abuse in the community make learning difficult for students here.” Second, the collective efficacy measure utilized a 5-point Likert scale rather than the original 6-point scale. It is unclear why this change was made when the EBP-SPP survey was written (see Table 1 for the items). The wording and scale is consistent in the surveys used in both Studies 1 and 3.

Studies 2 and 3 included a readiness scale that is an adaptation of the Ohio Community Collaboration Model for School Improvement (OCCMSI) School Staff Readiness Tool. This tool was designed to be used by teachers and school staff in the OCCMSI pilot schools to assess readiness to participate in the pilot project (Anderson-Butcher et al., 2004; Flaspohler et al., 2006). This tool was created to measure organizational readiness for innovation based on the work of Davis and Salasin (1975) and Robbins et al. (2003). Eight key factors have been identified that influence the likelihood that a promising innovation will be adopted by a target group. This conceptual model uses the acronym A VICTORY, which as stated previously stands for the following: ability, values, ideas, circumstances, timing, obligation, resistances, and yield (Davis & Salasin, 1975). The OCCMSI School Staff Readiness Tool (Flaspohler et al., 2006) includes 12 items, eight of which reflect the components of the A VICTORY model, and four additional items which are also conceptually related to the A VICTORY model. Respondents rate each item on a 7-point Likert scale in Study 1 and a 10-point Likert scale in Study 3, with anchors that change based on the item. The reason for the change in scale is unknown, but believed to be due to human error when the survey was created.
The wording of the items and anchors of the readiness scale were edited to be congruent with the aims of the EBP-SPP project. The changes in item wording were necessary because readiness for adoption of an evidence-based program in general was being measured rather than readiness to adopt a specific program or initiative (see Table 2 for the measure used).

Psychometric properties of the OCCMSI School Staff Readiness Tool have not been published. Preliminary research demonstrated good overall internal consistency \((a = .78)\) on 11 of the 12 items (J. Bean, personal communication, March 17, 2007). Descriptive statistics are reported for the eight A VICTORY items that were completed by 17 schools as part of the application process to become OCCMSI pilot schools. Comparison statistics for schools chosen to be pilot schools \((N = 6)\) and those not chosen \((N = 11)\) are provided. Of those selected to be pilot schools, the mean ratings of each readiness item was higher than those not selected, except for one item. This item indicated the pilot schools’ perception that they were less likely to have the internal resources and capabilities to implement and evaluate the model than the schools that were not selected. The authors suggest that the process of collecting and using the readiness data may have been more important than the information provided by the data (Flaspohler et al., 2006).

Results

Prior to analyses, all three data sets were reviewed for missing data and outliers, in addition to ensuring all other assumptions necessary for the analyses to be performed were met. Tabachnick and Fidell (2001) suggest that exclusion of cases with missing data is acceptable when missing data is 5% or less of the data points and the pattern of missing data are found to be random. Based on this, participants who began the survey but did not complete any of the items on the measures used in this research and those who did not answer all questions on the measures used in this research were not included in the analyses. The cases identified as being multivariate outliers using Mahalanobis distance with \(p < .001\) were also removed (Tabachnick & Fidell, 2001). No univariate outliers were present and all other assumptions necessary for the analyses to be performed were met. A summary of data used in the analyses is located in Table 3.

Study 1. In order to test the hypothesis that collective efficacy is a unidimensional construct, a two step process was undertaken. Principal components analysis with no rotation was performed for initial factor extraction, followed by maximum likelihood factoring with
Promax rotation \((kappa = 4)\) to test the interpretability of the extracted factors. To determine the number of factors to retain the Kaiser-Guttman rule (Brown, 2006; Tabachnick & Fidell, 2001) and Catell scree test (Catell, 1966; Tabachnick & Fidell, 2001) were used. The Kaiser-Guttman rule suggests that factors with an eigenvalue greater than 1 be retained. The Catell scree test requires visual inspection of a graph that has the eigenvalues plotted on the vertical axis and the factors plotted on the horizontal axis. This test suggests retaining factors located prior to the point where the slope changes or flattens. The interpretation of the factors and the quality of the solution were determined by three criteria suggested by Brown (2006). First, the meaningfulness and conceptual relevance of the factors were considered. Second, factors with only two or three items loading significantly on it and factors defined by items that have small loadings were considered to be poorly defined and were eliminated. Third, items with high loadings on more than one factor or with small loadings on all factors were considered to be poorly behaved items and were eliminated.

Following the Kaiser-Guttman rule (Brown, 2006; Tabachnick & Fidell, 2001) and Catell scree test (Catell, 1966; Tabachnick & Fidell, 2001), two factors were extracted and retained from the principal components analysis. The eigenvalues of the two factors were 4.32 and 1.51 (see Table 4).

Maximum likelihood factoring with Promax rotation \((kappa = 4)\) was then used to estimate the population values for factor loadings for the two factors that were extracted. This rotation was chosen because it was believed that the underlying processes of collective efficacy were correlated, and to increase the interpretability of the initial two factor solution (Tabachnick & Fidell, 2001). After rotation requiring three iterations, the eigenvalues remained the same and the two factor solution accounted for 48.54% of the variance. Using a minimum loading of .32 for interpretation of variables as suggested by Tabachnick and Fidell (2001), all variables were interpretable and no items loaded onto both factors. The factor loadings from the pattern matrix are presented in Table 5 and the factor correlation matrix is presented in Table 6.

Following the three criteria for interpretation of the factors and determining the quality of the solution (Brown, 2006), the two factor solution for collective efficacy was considered to be meaningful and empirically sound. No factors were considered to be poorly defined, and none of the items were considered to be poorly behaved. Factor 1 includes the six items categorized on the Collective Efficacy Scale Short Form (Goddard, 2002) as group competence (GC), and
Factor 2 includes the six items categorized as analysis of the teaching task (TA). Although the results of this study do not support the hypothesis, they are congruent with the theoretical underpinnings of the measure which organized the questions into two categories. As assessed by this measure and with this sample, collective efficacy can be conceptualized as two constructs.

**Study 2.** The same combination of analytic techniques as described in Study 1 was used to test the hypothesis that readiness is a unidimensional construct. While principal components analysis extracted two factors with eigenvalues greater than 1, 6.36 and 1.28 (see Table 4), and a scree plot that was also supportive of a two factor solution, the criteria for interpretation was not satisfied using maximum likelihood factoring.

After rotation requiring three iterations, the eigenvalues of maximum likelihood factoring with Promax rotation ($kappa = 4$) remained the same. Careful examination of the pattern matrix revealed that the criteria for interpretation of the factors and the quality of the solution (Brown, 2006) were not met. The item loadings do not allow for a comprehensible definition or meaningful identification of the two factors (see Table 7). At the item level, two items, Items 4 and 5, are considered to be poorly behaved. Item 4 (time) did not load significantly onto either factor and Item 5 (yield) loaded significantly onto both factors. Once these two items were removed, Factor 1 was left with only three items that load significantly onto it, making it a poorly defined factor. The factor analysis results suggest that readiness, as assessed by this measure and with this sample, is a complex construct due to the inability to empirically simplify the structure into one construct or to empirically obtain more than one comprehensible construct.

**Study 3.** It was hypothesized that collective efficacy and readiness are related because of the contribution of capacity and readiness to implementation failure and the relationship between capacity and collective efficacy. Using SPSS, a Pearson product moment correlation was performed to test for a statistical relationship between collective efficacy and readiness utilizing the mean responses of participants for the two factors of collective efficacy, GC and TA, and the 12 items of the EBP-SPP Readiness measure. Neither correlation between GC and readiness or TA and readiness were statistically significant (see Table 8). Internal consistency was examined using Cronbach’s alpha (group competence $a = .78$; analysis of the teaching task $a = .77$).

Because no meaningful constructs were found for readiness through factor analysis and no statistically significant relationship was found between GC or TA and readiness, two standard
multiple regressions were performed to examine the relationships between the individual items in the EBP-SPP Readiness measure and both factors of collective efficacy.

A standard multiple regression was performed using SPSS between GC as the dependent variable and each of the 12 items of the EBP-SPP Readiness measure as the independent variables. $R$ for regression was significantly different from zero ($F_{12, 112} = 2.35, p < .05$), with $R^2$ at .20. The adjusted $R^2$ indicates that approximately 12% of the variability in GC is accounted for by this model. Items 1 and 11, representing school willingness and timing, from the EBP-SPP Readiness measure were significant ($t_{112} = 3.48, p < .05; t_{112} = -2.08, p < .05$).

A standard multiple regression was performed using SPSS between TA as the dependent variable and each of the 12 items of the EBP-SPP Readiness measure as the independent variables. $R$ for regression was not significantly different from zero ($F_{12, 112} = 1.21, p > .05$).

This examination of the relationship between readiness and the two factors of collective efficacy, GC and TA, found that TA is not significantly related to readiness and only school willingness and timing from the EBP-SPP Readiness measure were significantly related to GC.

Discussion

This research was conducted in an attempt to increase the understanding of the constructs of collective efficacy and readiness, and the relationship between these two constructs. It is believed that by increasing the understanding and measurement of readiness and collective efficacy, implementation failure can be reduced by strengthening the ability to better select sites to implement evidence-based programs and to increase capacity in organizations that are implementing such programs. This section elaborates on the findings of this research, and discusses limitations and next steps for future research.

For Study 1, it was hypothesized that the construct of collective efficacy would be represented by a single construct. This hypothesis was not supported. It is interesting that Goddard (2002) extracted a one factor solution while a two factor solution was extracted in this research. There are many possible explanations for this, three of which follow. First, this research included all school staff instead of only surveying teachers. This may have impacted the results because the original measure was designed specific to teachers rather than for all school staff. Second, the circumstances of this survey being completed as part of a grant application process may have resulted in response bias. Third, the collective efficacy measure was completed in conjunction with multiple other measures with an emphasis on prevention.
programs. This might have induced teachers to think beyond the task of teaching when completing the collective efficacy measure.

For Study 2, it was hypothesized that readiness could be represented by one or more constructs. This hypothesis was not supported. There are many potential reasons for the inability to find an empirical or conceptually valid single or multifactorial solution. One possibility is that the results are in line with the lack of convergence in the literature on a single definition of readiness and suggest that the construct of readiness is multifaceted. If readiness differs by schools, this may have also impacted the results of this study since the responses from the staff of multiple schools were included in the study. Alternatively, it is possible that the current measure failed to assess readiness.

For Study 3, it was hypothesized that collective efficacy and readiness are related, which was evaluated by examining the relationship between the two constructs. This hypothesis was partially supported. Two significant relationships were found between school willingness and timing and group competency (GC). The relationship between school willingness and GC suggests a parallel relationship, in that as scores on school willingness increase, scores on GC will also increase. Interestingly, an inverse relationship is suggested between timing and GC; as scores increase on timing, GC will decrease.

Interesting information was gleaned from the results of this research. First, the results suggest that readiness is a complex concept, because it was not able to be reduced to one or more constructs. Second, because collective efficacy may be associated with school willingness to participate in a new program or strategy, interventions geared to increase collective efficacy and/or capacity may assist with overcoming challenges to implementation of evidence-based programs. Third, the significant relationship found between timing and GC highlights the need to pay greater attention to the timing of the implementation of evidence-based programs.

The results of Study 2 suggest that readiness, as assessed by the EBP-SPP Readiness measure, is complex. This measure assessed eight theory-based components of readiness, but they were not related in a way that allowed for the reduction of variables into meaningful constructs that were relatively independent of each other. This supports the idea that readiness, in general, is a complex construct. For the purposes of this paper, readiness was defined as an organization’s level of preparedness to successfully implement an innovation (program or initiative) and includes motivations, attitudes, knowledge, and resources. One possibility may be
that there is greater overlap between capacity and readiness than is captured in this measure and
that the inclusion of more dimensions of readiness discussed in the literature would need to be
assessed for empirical simplification to occur through factor analysis. It is also possible that
readiness would be better measured on multiple dimensions rather than attempting to collapse
the construct into one dimension, as was done with the measure used in this research. Another
possibility is that the value placed on the dimensions of readiness represented in a survey will
vary enough from one person to another, or from one school to another, that simple measurement
approaches that evaluate readiness in an aggregate format, such as surveys, are not appropriate.
Measurement approaches that include mixed methods, such as a survey followed by a structured
interview, might provide a more accurate measurement of readiness. Additionally, it has been
noted that the process of collecting and using the readiness data may have been more important
in the work with schools in the OCCMSI initiative than the information provided by the data
(Flaspohler et al., 2006). This suggests that the process, rather than the product, may be more
helpful to some organizations, which would reduce the importance placed on using a
measurement tool that can be scored to determine the organization’s level of readiness.

Two readiness items, school willingness and timing, were found to have significant
relationships to one factor of collective efficacy, GC. This suggests that one strategy to
overcome challenges to the implementation of evidence-based programs would be to increase the
level of collective efficacy and/or capacity. Multiple authors discuss readiness as a reason for
implementation failure (Elliott & Mihalic, 2004; Greenberg, 2004; Robbins et al., 2003) and it
has also been noted that schools are “at varying degrees of readiness for engaging in significant
organizational change to implement innovative programs” (Robbins et al., 2003, p. 53).
Increasing collective efficacy, particularly GC, may be a useful strategy for helping schools to
increase their readiness to successfully implement evidence-based programs. Two sources of
information that shape collective efficacy beliefs are mastery and vicarious experiences.
Knowing this, collective efficacy could be increased by reviewing past successes of the school
staff related to GC and/or hearing from similar schools about their successes related to GC.

Another approach to increasing readiness may be to increase capacity. In this research,
collective efficacy was used to measure innovation-specific motivations and attitudes of capacity
at the organizational level, and as previously noted, implementation failure has been related to a
lack of capacity to absorb an intervention (Chinman et al., 2005; Elliot & Mihalic, 2004; Miller
One possible approach to increasing general capacities is through the use of best practice processes, which are processes that guide work with organizations or communities but are not tied to a specific problem or issue. Best practice processes have been suggested to be more generalizable than a “packaged” program, such as a model or best practice program (Green, 2001). Interventions, actions, and activities found in best practice processes that can be generalized, or used in various settings and to help address various problems, include ways of engaging the community; assessing and finding fit among needs, resources, and circumstances with interventions; and planning programs (Green, 2001). One example of a best practice process is the Getting to Outcomes (GTO) framework (Chinman, Imm, & Wandersman, 2004), which is a strategic planning process based on answering 10 accountability questions about needs and resources, goals, best practice, fit capacity, planning, implementation, outcome evaluation, continuous quality improvement, and sustainability. GTO was developed to increase practitioners’ ability to plan, implement, evaluate, and sustain programs. By engaging in the GTO process, an organization may be able to increase their level of readiness to implement an innovation through having increased their general capacities.

Third, the significant relationship found between timing and GC, one factor of collective efficacy, highlights the need to further examine this relationship. The prompt for the timing question is, “I view a new prevention program or strategy as” and the anchors are “poorly timed to fit with my school’s other activities / timed just right to fit with my school’s other activities.” As the school staff endorsed perceiving their school to be ready for a program, ratings of group competence decreased. This is counterintuitive. One possible reason for this inverse relationship is that school staff perceives the timing to be right to implement a program but are anticipating that the implementation of another program would ultimately decrease GC due to the demands they expect it will entail. Due to the ambiguity of the definition of timing in this question, it is also unclear what participants were considering when answering this question. Things that may warrant consideration in future research include the academic calendar, the status of other programs or initiatives, and activities that are in process or forthcoming. Related to the academic calendar, teachers may consider it to be poor timing if implementation of an evidence-based program was to take place shortly before statewide testing when their primary focus is preparing students for the test or at the end of an academic year because new students entering the building the following year would be unfamiliar with the program. If multiple
programs or initiatives are slated to be implemented at the same time or there are already multiple programs currently in place, the addition of one more program may be seen by the school staff as being poorly timed because it would be too many programs at once. Additionally, if programs or initiatives are not yet considered to be well established, staff may consider the addition of another program poor timing. Finally, if other activities are in progress or forthcoming that require additional staff time and/or pull students’ attention (e.g., homecoming/spirit week, spring break, school carnival) staff may not consider it good timing to implement a new program.

As with any study, some limitations were present. These limitations are both internal and external. The internal limitations are related to data collection, demand characteristics, and changes in the response scale, and the external limitations are related to generalizability.

An internal limitation of this study is that the different demand characteristics may have influenced responding. Because data was collected as part of the initial EBP-SPP grant application process, the opportunity to obtain funding may have resulted in a positive bias on the part of respondents. Additionally, two types of collection methods were used. Data used in Studies 1 and 2 were collected using an online survey website, and data used in Study 3 was collected using a paper and pencil format. It is possible that those responding to the online surveys provided more honest, less socially desirable responses as compared to those who completed the paper and pencil format (Bachmann et al.; Dillman; Kiesler & Sproull as cited in Vaux & Briggs, 2006). While there is no way to rule out or control for positive bias in this study, the emergence of differentiated factors within constructs suggests that demand characteristics were not strong or were not operating.

The change in the response scales is also an internal limitation. On the original collective efficacy measure a 6-point Likert scale was used, while the EBP-SPP surveys used a 5-point Likert scale. The reason for this change is unknown. This change may not have affected the results of this study given research that suggests this type of change will not affect the response style or set, which when present, results in inflated estimates of reliability (Bardo & Yeager, 1982). Conversely, the inclusion of a neutral response with the 5-point Likert scale may increase the potential for a response set (Cronbach, 1946). On the EBP-SPP Readiness measure, there was a change in the response scale from a 7-point Likert scale used in Study 2 to a 10-point Likert scale in Study 3. Future research could be used to rule out unintentional effects from the
scale changes through replication of results using the original 6-point Likert scale on the collective efficacy measure and consistency on the response scale of the readiness measure.

An external limitation of this study is the limited generalizability of the results. Given that the data used in Studies 1 and 2 were collected as part of a grant application process, a positive bias may have been present in the responses of the staff. It is also possible that there are differences in levels of readiness and/or collective efficacy between schools that actively seek out grants, in this case for evidence-based prevention programs, and those that do not. The data used in Study 3 was collected from schools that had already received grants from the EBP-SPP initiative. Having been chosen as grantees indicates that these schools were perceived to have a higher level of readiness and capacity as compared to those schools not selected. These dynamics make it unclear if the findings of this research would be replicated in schools that do not actively seek out grants or in schools that do not demonstrate similar levels of readiness and capacity.

More research is needed related to readiness and collective efficacy. Suggestions for future research include augmenting the readiness measure with additional questions, the use of research designs that allow for a criterion against which to measure both collective efficacy and readiness, and research designed to determine if group competence (GC) has a greater impact on school staff’s perception of readiness than analysis of the teaching task (TA).

Augmenting the EBP-SPP Readiness measure to include additional dimensions might result in a measure that more accurately reflects the complex construct of readiness. Four topic areas that may prove useful include leadership, funding, organizational policies, and timing. Leadership at both the building and district level can impact not only whether or not a program is implemented, but also the way in which a program operates once implemented. As suggested by GTO (Chinman, Imm, & Wandersman, 2004; Wandersman, Imm, Chinman, & Kaftarian, 2000), leaders, who provide both leadership and an understanding of the program, are important elements to assessing capacity and may also be relevant to assessing readiness. Furthermore, the availability of necessary resources is currently addressed within the measure, but funding specifically is not. Knowing that many districts are facing tough decisions about which programs and/or staff to cut due to financial constraints, the perception of the availability of funding to assist with the implementation of a program may be another untapped but important aspect of readiness. Organizational policies are also important to ascertain. If a school is
considering implementing a program, but does not have policies in place to support implementation (e.g., desire to implement a bully prevention program but no policy against bullying currently exists), this might also affect the perception of readiness. Finally, questions that distinguish between different types of timing issues may be beneficial.

The use of alternative research designs that allow for a criterion against which to measure both readiness and collective efficacy is suggested. The construct of collective efficacy is well established in the literature, while readiness is not as clearly established. Both constructs could benefit from research that establishes a sufficient criterion against which to evaluate them, assuming that readiness and collective efficacy are, in fact, the constructs being measured by the surveys. In other words, the inclusion of a measurement criterion would help assess the construct validity of the measures. Additionally, such a criterion could be used to determine whether readiness is related to the absorption of an innovation in a practice setting. The use of pre- and post-surveying might be one useful research design to further the understanding of these constructs. Another alternative would be the use of a longitudinal research design to allow for the observation of fluctuations of collective efficacy and/or readiness that could be mapped against the school’s current stage in the implementation process. Because the use of surveys to assess readiness is not well established in the literature, other methods of assessment should be considered and tested against using survey assessments.

More research is needed to determine if GC has a greater impact on school staff’s perception of readiness than TA, which includes perceptions of the abilities and motivations of students and the support provided by the students’ home and community. To investigate this, future research should examine this relationship at the school-level, rather than aggregating the data, and across multiple schools. Additionally, care should be taken to ensure that a diverse set of schools are included in future research. Factors such as socioeconomic status, size, location (i.e., urban, rural, suburban), and religious and ethnic diversity of the student body should be considered. Longitudinal research may also be useful. The process of implementing an evidence-based program in a school whose staff has scored high in GC and low in TA can be monitored. If such a school successfully implements the program, this would provide support for GC having a greater impact on the perception of readiness than TA. If future research is able to demonstrate that GC has a greater impact on school staff perceptions of readiness than TA, this would suggest that when school staff perceive a high level of GC that an evidence-based
program may be successfully implemented in the school regardless of their perceptions of the abilities and motivations of students and the support provided by the students’ home and community.

This research represents the first step in what is anticipated to be a long line of research related to increasing the understanding of collective efficacy and readiness as well as examining the relationship between these constructs. While limited, these findings provide an interesting contribution to the theoretical understanding and measurement of collective efficacy and readiness. This research suggests that readiness is a complex construct, that interventions designed to increase the collective efficacy and/or capacity of organizations may help decrease implementation failure, and that teachers’ sense of GC is related to school willingness and timing. Future research is clearly warranted to better understand readiness and collective efficacy for the development of strategies to better select sites to implement evidence-based programs, and to strengthen the ability to increase capacity in organizations that are adopting evidence-based programs in an effort to reduce implementation failure.
References


Table 1

*EBP-SPP Collective Efficacy Items*

1. Teachers in this school are able to get through to the most difficult students.
2. Teachers here are confident they will be able to motivate their students.
3. If a child doesn’t want to learn teachers here give up.
4. Teachers here don’t have the skills needed to produce meaningful learning.
5. Teachers in this school believe that every child can learn.
6. These students come to school ready to learn.
7. Home life provides so many advantages that students here are bound to learn.
8. Students here just aren’t motivated to learn.
9. Teachers in this school do not have the skills to deal with student disciplinary problems.
10. The opportunities in this community help ensure that these students will learn.
11. Learning is more difficult at this school because students are worried about their safety.
12. Social problems such as drug and alcohol abuse in the community make learning difficult for students here.

Adapted from Goddard (2002)
<table>
<thead>
<tr>
<th>EBP-SPP Readiness Items</th>
<th>Anchors</th>
</tr>
</thead>
<tbody>
<tr>
<td>My school would be: (school willingness)</td>
<td>Reluctant to participate in a new prevention program or strategy</td>
</tr>
<tr>
<td></td>
<td>Willing to participate in a new prevention program or strategy</td>
</tr>
<tr>
<td>I see a new prevention program or strategy as: (clarity)</td>
<td>Obscure and confusing</td>
</tr>
<tr>
<td></td>
<td>Clear and understandable</td>
</tr>
<tr>
<td>I consider a new prevention program or strategy as: (fit)</td>
<td>Poor fit with my school’s mission and objectives</td>
</tr>
<tr>
<td></td>
<td>Good fit with my school’s mission and objectives</td>
</tr>
<tr>
<td>I see participating in a new prevention program or strategy as: (time)</td>
<td>Demanding a great deal of my school’s time and effort</td>
</tr>
<tr>
<td></td>
<td>Not demanding a great deal of my school’s time and effort</td>
</tr>
<tr>
<td>I see a new prevention program or strategy as: (yield)</td>
<td>Irrelevant to helping my school get good family and child outcomes</td>
</tr>
<tr>
<td></td>
<td>Essential to helping my school get good family and child outcomes</td>
</tr>
<tr>
<td>I view the participation of my school in a new prevention program or strategy as:</td>
<td>Unnecessary</td>
</tr>
<tr>
<td>(obligation)</td>
<td>Necessary</td>
</tr>
<tr>
<td>I see a new prevention program or strategy as: (circumstances)</td>
<td>Making my work harder</td>
</tr>
<tr>
<td></td>
<td>Making my work easier</td>
</tr>
<tr>
<td>I view a new prevention program or strategy as having: (benefit)</td>
<td>No benefits to my school’s work with families and children</td>
</tr>
<tr>
<td></td>
<td>Substantial benefits to my school’s work with families and children</td>
</tr>
<tr>
<td>I think a new prevention program or strategy: (meaning)</td>
<td>Does not make sense</td>
</tr>
<tr>
<td></td>
<td>Makes sense</td>
</tr>
<tr>
<td>EBP-SPP Readiness Items</td>
<td>Anchors</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>I would be: (personal willingness)</td>
<td>Resistant to my school’s participation in a new prevention program or strategy</td>
</tr>
<tr>
<td>I view a new prevention program or strategy as: (timing)</td>
<td>Poorly timed to fit with my school’s other activities</td>
</tr>
<tr>
<td>In your opinion, how much support would your school need to plan for and actively participate in a new prevention program or strategy? (support)</td>
<td>Very little</td>
</tr>
</tbody>
</table>

Adapted from Anderson-Butcher et al. (2004)
Table 3

*Summary of Data Used in the Analyses*

<table>
<thead>
<tr>
<th>Study</th>
<th>Date</th>
<th>No. of schools</th>
<th>Total no. of participants</th>
<th>Measures included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study 1</td>
<td>March 2006</td>
<td>13</td>
<td>444</td>
<td>Collective efficacy</td>
</tr>
<tr>
<td>Study 2</td>
<td>January 2007</td>
<td>13</td>
<td>497</td>
<td>Readiness</td>
</tr>
<tr>
<td>Study 3</td>
<td>October 2006</td>
<td>5</td>
<td>125</td>
<td>Collective efficacy &amp; Readiness</td>
</tr>
</tbody>
</table>
Table 4  
*Factor Eigenvalues, Percent Variance, and Intercorrelation from Principal Components Analysis and Maximum Likelihood Factor Analysis of EBP-SPP Collective Efficacy and Readiness Measures*

<table>
<thead>
<tr>
<th></th>
<th>Factor Eigenvalues (% Variance)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>r*</td>
</tr>
<tr>
<td>EBP-SPP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collective Efficacy</td>
<td>444</td>
<td>4.32 (35.98%)</td>
<td>1.51 (12.56%)</td>
<td>.99 (8.28%)</td>
<td>.78 (6.47%)</td>
<td>.58</td>
</tr>
<tr>
<td>Readiness</td>
<td>497</td>
<td>6.36 (53.02%)</td>
<td>1.28 (10.65%)</td>
<td>.97 (8.09%)</td>
<td>.72 (6.04%)</td>
<td>.78</td>
</tr>
</tbody>
</table>

*intercorrelation of first two factors is from Maximum Likelihood Factor Analysis forcing a two-factor solution with Promax rotation*
Table 5

*Factor Loadings from Maximum Likelihood Factor Analysis with Promax Rotation of EBP-SPP Collective Efficacy Measure*

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers in this school are able to get through to the most difficult students.</td>
<td>.544</td>
</tr>
<tr>
<td>Teachers here are confident they will be able to motivate their students.</td>
<td>.666</td>
</tr>
<tr>
<td>If a child doesn’t want to learn teachers here give up.</td>
<td>.783</td>
</tr>
<tr>
<td>Teachers here don’t have the skills needed to produce meaningful learning.</td>
<td>.666</td>
</tr>
<tr>
<td>Teachers in this school believe that every child can learn.</td>
<td>.758</td>
</tr>
<tr>
<td>These students come to school ready to learn.</td>
<td>.128</td>
</tr>
<tr>
<td>Home life provides so many advantages that students here are bound to learn.</td>
<td>-.151</td>
</tr>
<tr>
<td>Students here just aren’t motivated to learn.</td>
<td>.225</td>
</tr>
<tr>
<td>Teachers in this school do not have the skills to deal with student disciplinary problems.</td>
<td>.430</td>
</tr>
<tr>
<td>The opportunities in this community help ensure that these students will learn.</td>
<td>-.046</td>
</tr>
<tr>
<td>Learning is more difficult at this school because students are worried about their safety.</td>
<td>.091</td>
</tr>
<tr>
<td>Social problems such as drug and alcohol abuse in the community make learning difficult for students here.</td>
<td>-.087</td>
</tr>
</tbody>
</table>

* Bold type indicates significant factor loadings
Table 6

*Factor Correlation Matrix from Maximum Likelihood Factor Analysis with Promax Rotation of EBP-SPP Collective Efficacy Measure*

<table>
<thead>
<tr>
<th>Factor</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.000</td>
<td>.581</td>
</tr>
<tr>
<td>2</td>
<td>.581</td>
<td>1.000</td>
</tr>
</tbody>
</table>
Table 7  
Factor Loadings from Maximum Likelihood Factor Analysis with Promax Rotation of EBP-SPP Readiness Measure

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor*</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>My school would be: Reluctant/Willing to participate in a new prevention program or strategy</td>
<td></td>
<td>.866</td>
<td>-.260</td>
</tr>
<tr>
<td>I see a new prevention program or strategy as: Obscure and confusing/Clear and understandable</td>
<td></td>
<td>.790</td>
<td>-.100</td>
</tr>
<tr>
<td>I consider a new prevention program or strategy as a: Poor fit/Good fit with my school’s mission and objectives</td>
<td></td>
<td>.892</td>
<td>-.053</td>
</tr>
<tr>
<td>I see participating in a new prevention program or strategy as: Demanding/Not demanding a great deal of my school’s time and effort</td>
<td></td>
<td>.212</td>
<td>-.007</td>
</tr>
<tr>
<td>I see a new prevention program or strategy as: Irrelevant/Essential to helping my school get good family and child outcomes</td>
<td></td>
<td>.356</td>
<td>.499</td>
</tr>
<tr>
<td>I view the participation of my school in a new prevention program or strategy as: Unnecessary/Necessary</td>
<td></td>
<td>0.036</td>
<td>.835</td>
</tr>
<tr>
<td>I see a new prevention program or strategy as: Making my work harder/easier</td>
<td></td>
<td>0.094</td>
<td>.634</td>
</tr>
<tr>
<td>I view a new prevention program or strategy as having: No benefits/Substantial benefits to my school’s work with families and children</td>
<td></td>
<td>0.208</td>
<td>.719</td>
</tr>
<tr>
<td>I think a new prevention program or strategy: Does not make sense/Makes sense</td>
<td></td>
<td>0.024</td>
<td>.899</td>
</tr>
<tr>
<td>I would be: Resistant/Open to my school’s participation in a new prevention program or strategy</td>
<td></td>
<td>0.246</td>
<td>.622</td>
</tr>
<tr>
<td>I view a new prevention program or strategy as: Poorly time/Timed just right to fit my school’s other activities</td>
<td></td>
<td>0.313</td>
<td>.519</td>
</tr>
<tr>
<td>In your opinion, how much support would your school need to plan for and actively participate in a new prevention program or strategy: Very little/Substantial</td>
<td></td>
<td>-.299</td>
<td>.390</td>
</tr>
</tbody>
</table>

* Bold type indicates significant factor loadings
Table 8

*Correlation Matrix for Group Competence (GC), Analysis of the Teaching Task (TA), and Readiness*

<table>
<thead>
<tr>
<th></th>
<th>GC</th>
<th>TA</th>
<th>Readiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>GC</td>
<td>Pearson Correlation</td>
<td>1.000</td>
<td>-0.007</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>0.939</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>125</td>
<td>125</td>
</tr>
<tr>
<td>TA</td>
<td>Pearson Correlation</td>
<td>0.402**</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>0.060</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>125</td>
<td>125</td>
</tr>
<tr>
<td>Readiness</td>
<td>Pearson Correlation</td>
<td>-0.007</td>
<td>-0.169</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.939</td>
<td>0.060</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>125</td>
<td>125</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)