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**Beyond Content: Incorporating Social and
Emotional Learning into the Strive
Framework**

Volume I: Social and Emotional Competencies and
their Relationship to Academic Achievement

August, 2013





Every child. Cradle to career.

A Letter from the Strive Task Force on Measuring Social and Emotional Learning

Mainstream education has traditionally put an emphasis on mastery of core academic content, particularly since the inception of “No Child Left Behind.” However, emerging research is demonstrating that other, non-content competencies are important to success in school and career. The Strive Network is focused on supporting this full range of competencies in our communities.

Recognizing a connection between building social emotional competencies and academic success, and hearing much interest in the subject within the Network, the Strive Cradle to Career Network launched, early this year, the *Task Force on Measuring Social and Emotional Learning* comprised of representatives from the Network as well as experts in the field. Our charge was to:

- Determine a menu of social and emotional competencies that are well related to achievement, are malleable, and that cradle-to-career partnerships can track and measure as part of their work
- Identify a set of scalable measures / assessments of these competencies

To accomplish these goals, Philliber Research Associates was engaged to study this complex and emerging field, and identify competencies and measures that met criteria decided upon by the Task Force, which placed an emphasis on improvement of student achievement.

The Task Force on Measuring Social and Emotional Learning is very pleased to offer this report entitled ***Beyond Content: Incorporating Social and Emotional Learning into the Strive Framework*** which fulfills the objectives identified above. This report has been developed to serve as a resource to the Network, helping guide its membership of cross-sector education partnerships as they identify competencies upon which to focus and to measure.

The Task Force’s approach to this research has taken into account the unique context of the Cradle to Career Network, specifically the nature of a *cross-sector* and *data-driven* method of improvement in which communities come together around an agreed-upon set of outcomes and data they want to improve. (see www.strivenetwork.org for more information on the Strive approach to improving student achievement.) Thus, throughout the research review, the emphasis was placed on identification of competencies and measurement of these competencies versus identifying best practice interventions. There is certainly value in understanding what is working in terms of building these social and emotional competencies, which lead to improved academics, but as cradle-to-career communities know, often the solutions exist in their own backyards. So, a critical first step is

understanding what to measure and what the data are telling them before identifying solutions. Still, we have taken care to include competencies that are, in fact, malleable so that communities can find strategies to enhance these among their young people, should they choose to do so.

Organized into three volumes – Volume I identifying and defining competencies that are clearly related to academic achievement and are malleable, Volume II summarizing available measures in the context of the cradle-to-career continuum, and Volume III offering a compendium of assessment tools – this report serves as a foundational resource for cradle-to-career partnerships as they explore this emerging field. We hope that this report will also serve as a resource to the broader field, and that national organizations and foundations with an interest in “beyond content” learning will build upon this base as they seek to make advancements in academic achievement. We look forward to partnering in that endeavor as we know this is only the beginning of this important work.

The Task Force extends heartfelt thanks to Philliber Research Associates for their excellent work and, more importantly, their flexibility as we found our path on this part of our Roadmap. The Task Force also wishes to thank our working group who did the heavy lifting on reviewing materials and providing feedback – your dedication is much appreciated and has been invaluable to this report. And finally, thank you to the MetLife Foundation and Robert Wood Johnson Foundation for their generous support, without which this project would not be possible.

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To access the full three volume report, please visit: www.strivenetwork.org/resources/reports

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Social-Emotional Learning: An Introduction

This is Volume I of the three volumes created to assist Strive communities in understanding, choosing, and measuring social-emotional competencies along the cradle to career continuum. These volumes are entitled:

Beyond Content: Incorporating Social and Emotional Learning into the Strive Framework

Volume I: Social and Emotional Competencies and their Relationship to Academic Achievement

Volume II: A Summary of Measures by Competency and Stage of the Cradle to Career Continuum

Volume III: A Compendium of Social and Emotional Competency Measures

In the past two decades, a substantial literature has accumulated to show that there are other factors that affect academic achievement besides content learning and memorization of subject material. Alternatively called socio-emotional competencies, socio-emotional learning (SEL), noncognitive factors, or 21st Century skills, this cluster of attitudes, abilities, and skills has now been shown to be directly and in the case of some of them, strongly related to student academic achievement.

In Strive communities, where there is an intense focus on student progress, there is high interest in using the most effective strategies to achieve this important goal. These volumes are the result of an extensive literature review linking social emotional competencies with a solid research base that shows them to be related to academic achievement and demonstrates that they are malleable.

This volume includes:

1. Definitions and conceptual background information on five key competencies meeting these criteria.
2. A discussion of the research on these competencies and their relationship to various indicators of academic achievement.
3. Lists of studies linking these competencies to the Strive benchmark indicators of achievement across the cradle to career continuum.
4. An extensive bibliography on these competencies and the research that supports their value in academic achievement so that communities can learn more about incorporating them into their strategies for assisting students.

The Appendix to this volume also includes some information on two other competencies that may be of interest: critical thinking and creativity. These were not included in the main body of Volume I because of their more tenuous relationship to academic achievement.

This work has revealed several important things about our knowledge of SEL. First, while it is now quite clear that these competencies are important to student success, the definitions and categorization of these competencies lack clarity. Writers and researchers use the same words for competencies with somewhat different definitions and the same definitions are used for different concepts. This, in turn, leads to a vast number of measurement approaches. While we would not expect completely consistent usage, definitions, or measures for SEL, this field of study would profit by more consistency so that we could begin to accumulate more secure knowledge about the utility of each.

Secondly, not all of the competencies included here are non-cognitive and indeed, a recent piece by Conley (2013), argues that this label should be abandoned since all of these competencies include at least some cognitive processes. Rotherham and Willingham (2010) have argued that the label “21st Century Skills” is also inappropriate because these competencies are hardly new and have long been required for academic achievement to be maximized.

It is also clear that the competencies are not equally well-related to achievement, as we discuss in our reviews of each of the five we have chosen, and we are only beginning to understand how they are related to one another. For example, if a student possesses a high degree of academic self-efficacy, or belief in his/her ability to succeed in school tasks, that student is also likely to display high perseverance or grit on such tasks, since he/she expects to succeed.

Finally, while all of the competencies chosen here are indeed malleable across the cradle to career continuum, they are not all equally malleable and some require more intensive and earlier intervention than others. We yet have much to learn about how to maximize their acquisition.

Still, this review is being shared because SEL is clearly an additional strategy for Strive communities to use in enhancing student achievement. We are hopeful that the Compendium provides Strive communities with a resource for understanding, enhancing, and measuring their success in increasing achievement-related competencies among their young people.

The Competencies

1. Academic Self-Efficacy

Definition and Background

Self-efficacy was first defined by Bandura in 1977 as a person's belief in his or her ability to succeed in specific situations. Bandura said it was "the conviction that one can successfully execute the behavior required to produce the outcomes"(p. 79). Examples of similar concepts in the literature are academic self-concept, outcome expectations, confidence, perceived ability, and perceived control or perceived academic control.

Since the introduction of the concept, researchers have recognized that while a person may feel self-efficacious in one endeavor, he or she may feel incompetent in another; hence the emergence of very specific kinds of self-efficacy, including academic self-efficacy, math self-efficacy, writing self-efficacy and so on. Even within a concept like math self-efficacy, researchers might try to measure very specific domains over which a student feels confident such as division, quadratic equations, or completion of math assignments.

Relationship to Academic Achievement

Lennon (2010) has recently reviewed 26 studies of self-efficacy and its relationship to academic outcomes of various kinds, and before him Multon et al., (1991) summarized research through 1988. The Multon study finds relatively large effects of self-efficacy on both academic performance and academic persistence. Yet a third review by Pajares (1996) argues:

"...the empirical connection between self-efficacy and academic performances and achievement has by now been reasonably secured."(p. 536)

There is also literature from studies of college students. Robbins et al., contributed a meta-analysis of the relationship of several psychosocial and study skill factors to college outcomes, including academic self-efficacy. Academic self-efficacy was found to be one of the strongest predictors of college retention and GPA. Also on the college level, Chemers, Hu and Garcia (2001) found academic self-efficacy strongly related to performance and adjustment to college and Vuong, Brown-Welty and Tracz (2010) found self-efficacy positively related to both GPA and college persistence.

A meta-analysis of 20 years of research on self-efficacy and work performance also showed a strong relationship between these two variables (Stajkovic and Luthans, 1998).

Other findings from this research include:

- Specific measures, tightly linked to the tasks to be performed, yield better relationships between self-efficacy and academic performance than more generalized measures (Pajares, 1996).
- Relationships are stronger for high school and college students than for elementary school students (Lennon, 2010). That is not to say that academic self-efficacy is not related to achievement among elementary students since there are studies supporting this relationship (e.g., Liew et al., 2008).
- Experimental studies yield higher effect sizes than correlational studies.
- Efficacy can be thought of as a collective construct as well, so that teachers, schools, and even school districts can develop a sense of collective efficacy.
- Self-efficacy also seems to predict greater perseverance among students (Bandura, 1986).

This latter finding caused authors to suggest that when a student believes he/she will eventually succeed at a task, the student is less likely to give up prematurely and is likely to expend more effort on the task.

Malleability

Self-efficacy is malleable. Schunk and Pajares (2001) have discussed strategies to be used in infancy through childhood and adolescence that will provide children with a sense of their ability to succeed. Persuasive information is also helpful in building self-efficacy, as are opportunities for a child to succeed and receive feedback that he has done so. Modeling, goal setting, and performance feedback to raise self-efficacy for such tasks as reading and writing have also been shown to be effective (Schunk, 1989; Schunk and Zimmerman, 2007).

Several analyses in the workplace likewise suggest that several strategies will enhance self-efficacy and thus performance, including making sure a worker understands a task, providing training to perform a task, and providing information that improves understanding of various strategies for completing a task (Gist and Mitchell, 1992). Modeling, feedback and persuasion have all been recommended. Frequent feedback on performance tends to produce accurate judgments of self-efficacy. Many writers suggest that believing that a task can be accomplished leads to greater persistence and thus greater success.

Overall, there is a vast amount of data to show that academic self-efficacy and various other more specific self-efficacy constructs, such as math self-efficacy, are strongly related to achievement. Self-efficacy is malleable at all stages of the cradle to career continuum.

Academic Self-Efficacy: Articles

References to articles covering more than one age group are repeated.

Author	Measure	Intervention	Key Findings
Kindergarten Readiness			
Lennon (2010)	24 Self-Efficacy measures identified (Preschool, Elementary, Middle, and High School)	Multiple (Lit Review)	Self-Efficacy has been found to have an impact on academic performance and the studies reviewed indicate that it can be improved.
3rd or 4th grade literacy			
Lennon (2010)	24 Self-Efficacy measures identified (Preschool, Elementary, Middle, and High School)	Multiple (Lit Review)	Self-Efficacy has been found to have an impact on academic performance and the studies reviewed indicate that it can be improved.
Liew, McTigue, Barrois & Hughes (2008)	Perceived Competence Scale for Children (cognitive competence subscale used)	Recommends Promoting Alternative Thinking Strategies (PATHS)	For 1st, 2nd and 3rd graders, academic self-efficacy beliefs were positively correlated with reading and math test scores. The results indicate that for meeting the critical 3rd grade benchmark in reading, early effortful control is one of the pre-cursors to academic self-efficacy beliefs and to literacy achievement.
Multon, Brown, & Lent (1991)	Multiple (meta-analysis)	None	The results of the 36 study meta-analyses (including elementary, high school, and college students) revealed a positive and statistically significant relationship between self-efficacy beliefs and academic performance. Self-efficacy beliefs account for approximately 14% of the variance of students' academic performance, and 12% of their academic persistence.
Schunk & Swartz (1993)	Writing Self-Efficacy (5-item measure created by authors)	Students were randomly assigned to one of four conditions: product goal, process goal, process goal plus feedback, general goal.	For 4th and 5th graders, writing self-efficacy was highly predictive of writing skill and strategy use. As hypothesized, the students in the process goal plus feedback group outperformed all other students on post self-efficacy, writing skill, and strategy use.

Academic Self-Efficacy: Articles

References to articles covering more than one age group are repeated.

Author	Measure	Intervention	Key Findings
8th grade math			
Fast et al. (2010)	Math Self-Efficacy (4-item scale adapted from Patterns of Adaptive Learning Scales)	None	For 4th, 5th and 6th graders, higher levels of math self-efficacy positively predicted math performance.
Lennon (2010)	24 Self-Efficacy measures identified (Preschool, Elementary, Middle, and High School)	Multiple (Lit Review)	Self-Efficacy has been found to have an impact on academic performance and the studies reviewed indicate that it can be improved.
Ramdass & Zimmerman (2008)	How sure do you feel in your capacity to complete this decimal division problem? (based on Bandura)	Students were randomly assigned to training or control group. Training group learned self-correcting strategies.	For 5th and 6th graders, self-efficacy significantly predicted math performance. Training in the use of self-correction strategies improved students' self-efficacy and mathematics performance.
Skaalvik & Skaalvik (2011)	Mathematics Self-Efficacy (created by authors)	None	For middle school and high school students, mathematics self-efficacy predicted subsequent end of year school grades over and above the prediction that could be made by prior achievement.
High School Graduation			
Lennon (2010)	24 Self-Efficacy measures identified (Preschool, Elementary, Middle, and High School)	Multiple (Lit Review)	Self-Efficacy has been found to have an impact on academic performance and the studies reviewed indicate that it can be improved.
Multon, Brown, & Lent (1991)	Multiple (meta-analysis)	None	The results of the 36 study meta-analyses (including elementary, high school, and college students) revealed a positive and statistically significant relationship between self-efficacy beliefs and academic performance. Self-efficacy beliefs account for approximately 14% of the variance of students' academic performance, and 12% of their academic persistence.
Skaalvik & Skaalvik (2011)	Mathematics Self-Efficacy (created by authors)	None	For middle school and high school students, mathematics self-efficacy predicted subsequent end of year school grades over and above the prediction that could be made by prior achievement.

Academic Self-Efficacy: Articles

References to articles covering more than one age group are repeated.

Author	Measure	Intervention	Key Findings
College enrollment and completion			
Chemers, Hu, & Garcia (2001)	8-item Academic Self-Efficacy measure developed by authors	None	Academic Self-Efficacy was strongly related to academic performance (instructors narrative evaluation, no grades given) and commitment to remain in school.
Multon, Brown, & Lent (1991)	Multiple (meta-analysis)	None	The results of the 36 study meta-analyses (including Elementary, high school, and college students) revealed a positive and statistically significant relationship between self-efficacy beliefs and academic performance. Self-efficacy beliefs account for approximately 14% of the variance of students' academic performance, and 12% of their academic persistence.
Robbins et al. (2004)	Identified 5 measures (meta-analysis)	None	A meta-analyses of 109 studies found a moderate relationship between academic self-efficacy and college retention. The best predictor for college GPA (out of 9 broad constructs) was academic self-efficacy.
Vuong, Brown-Welty & Tracz (2010)	Online College Self-Efficacy Inventory	None	Findings show that Self-Efficacy beliefs affect GPA and persistence rates.
Career/workforce			
Stajkovic & Luthans (1998)	Multiple (meta-analysis)	None	The results of the 114 study meta-analyses indicate a significant correlation ($d = .82$) between Self-Efficacy and work performance, which represents a 28% gain in performance.

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