



## Measuring the Effectiveness of the *Empowering Education* Curriculum

### 2015-2016 School Year

To measure the effectiveness of *Empowering Education's* foundational lessons promoting social and emotional learning, both students and teachers were surveyed at the beginning and end of the 2015-2016 school year.

During the school year, students participated in 30 lessons developed to promote positive behaviors through the *Empowering Minds: A Mindfulness-Based Social Emotional Learning (SEL) Curriculum*. This curriculum is comprised of foundational lessons that directly support the five core competencies of the Collaborative for Social Emotional Learning (CASEL). The five core competencies include: self-awareness, self-management, social awareness, relationship skills, and responsible decision making. The lessons are a product of six years of hands-on experience teaching and developing SEL in public schools. The lessons are experiential, fun, focused, and written in a way that will allow any teacher to deliver the content with minimal training. *Empowering Minds* is intentionally designed on the basis of three theoretical models: **mindfulness, brain-based learning, and cognitive behavioral therapy**. Combining these evidence-based models provides students with a wide range of tools and knowledge, increasing SEL competencies, and enabling more success navigating the complexities of relationships, emotions, thoughts, and behaviors. (More information can be found at [www.empoweringeducation.org](http://www.empoweringeducation.org).)

In previous years, lessons were taught by *Empowering Education* staff members. During the 2015-2016 school year, lessons were taught by classroom teachers who were given the flexibility to integrate the weekly lessons and discussions to fit their own classroom routines and schedules. Although *Empowering Education* staff was available for assistance, the school staff was responsible for implementing the program and creating the supporting school culture.

Surveys developed by *Child Trends* were selected as the survey instruments. These research-based surveys were designed to measure five specific social-emotional skills: (1) self-control, (2) academic self-efficacy, (3) persistence, (4) social competence, and (4) mastery orientation. The table below describes the skills and lists the student and teacher survey items associated with each. Note that *Child Trends* recommends that information on certain skills be collected via only the student survey or the teacher survey.

Table 1. Skill Descriptions and Survey Items

Skill	Description	Student Survey Items	Teacher Survey Items
Self-Control	A student having the ability to: a) control emotions behavior, b) inhibit negative behavior, c) sustain attention or concentrate on a given task, and d) wait for his or her turn or for what he or she wants.	5 items: -I can wait in line patiently. -I sit still when I'm supposed to. -I can wait for my turn to talk in class. -I can easily calm down when excited. -I calm down quickly when I get upset.	3 items: -Waited in line patiently. -Sat still when he/she was supposed to. -Waited for what he/she wanted.
Academic Self-Efficacy	A student's belief that he or she can effectively perform a variety of academic tasks.	3 items: -I can do even the hardest homework if I try. -I can learn the things taught in school. -I can figure out difficult homework.	None
Persistence	A student choosing to continue toward a goal in spite of obstacles, difficulties, or discouragement. For persistence to be present, a student's actions must be voluntary and indicate an underlying determination to continue at a task or goal despite challenges of failure that may occur along the way.	3 items: -If I solve a problem wrong the first time, I just keep trying until I get it right. -When I do badly on a test, I work harder the next time. -I always work hard to complete my school work.	3 items: -Worked on tasks until they were finished. -Kept working on an activity that was difficult. -Focused on tasks until they were finished.

Skill	Description	Student Survey Items	Teacher Survey Items
Mastery Orientation	A student's desire to complete work in order to learn and improve their skills and ability rather than for external validation.	3 items: -I do my schoolwork because I like to learn new things. -I do my schoolwork because I'm interested in it. -I do my schoolwork because I enjoy it.	None
Social Competence	A student having the ability to: a) understand and take peers' perspective, b) work well with peers to accomplish a task, c) resolve problems in ways that maximize positive consequences and minimize negative consequences for oneself and one's peers, and d) behave appropriately according to the situation or social norms.	None	5 items: -Worked well with peers. -Resolved problems with peers without becoming aggressive. -Was thoughtful of the feelings of his/her peers. -Cooperated with peers without prompting. -Understood the feelings of his/her peers. -Resolved problems with peers on his/her own

Student and teacher survey responses were coded as directed by the *Child Trends* survey scoring guide.

Response codes are shown in the table below.

Table 2. Response Codes

Response Option	Teacher Code
None of the time	1
A little of the time	2
Most of the time	3
All of the time	4

Response Option	Student Code
Not at all like me	1
A little like me	2
Somewhat like me	3
A lot like me	4

## Teacher Survey



Nine teachers from Denver Green School completed surveys on a random sample of students. One teacher from kindergarten, second, third, fourth, fifth, seventh, and eighth grade and two teachers from sixth grade participated. Teachers were surveyed at both the beginning and end of the 2014-2015 school year.

Beginning and end-of-year (pre and post) responses were matched for each student. The analysis was confined to 110 students since 22 students had beginning of the year data but no end-of-year data.

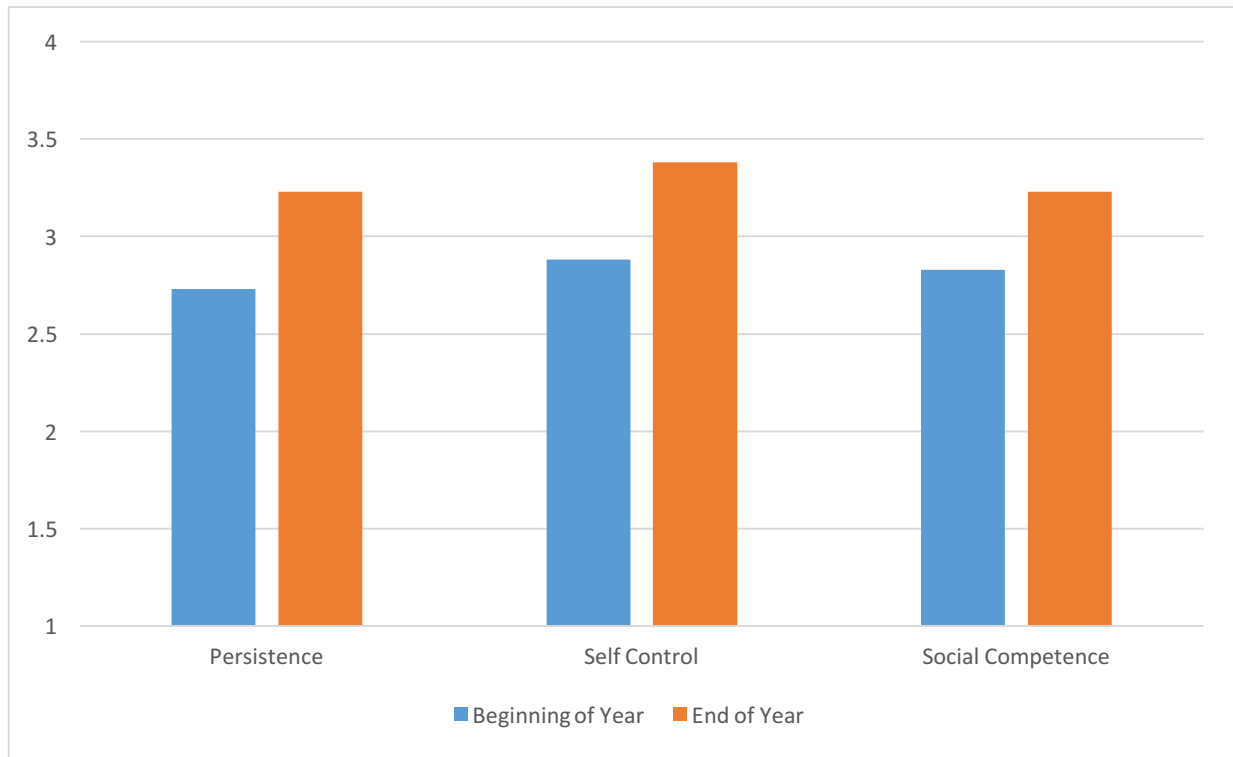
Once the teacher survey responses were paired and coded, average pre and post scores were calculated for each student in each of the three skill areas. To determine if skill scores increased throughout the school year, a series of three paired sample t-tests were performed to compare the average scores for each skill area.

Analysis revealed a statistically significant increase in student scores in all three skill areas when measured from beginning to end-of-year. Figures are shown in the table below.

Table 3. Skill Gains as Measured by Teacher Survey – Beginning of Year to End of Year

Skill	Sample Size	Pre Score Mean	Pre Score Standard Deviation	Post Score Mean	Post Score Standard Deviation	p-value	Statistically Significant?
Persistence	110	2.73	0.84	3.23	0.79	0	Yes
Self-Control	110	2.88	0.81	3.38	0.75	0	Yes
Social Competence	110	2.83	0.73	3.23	0.80	0	Yes

**Chart 1. Skill Gains as Measured by Teacher Survey – Beginning to End of Year**



These results suggest that, when rated by teachers, the *Empowering Education* curriculum has a positive impact on three social and emotional skills: *Persistence*, *Self-Control*, and *Social Competence*.

### Student Survey

Similar analysis was conducted using student survey data. The analysis was confined to 33 seventh grade students who completed both the beginning and end-of-year survey.

Once the student survey responses were paired and coded, average pre and post scores were calculated for each student in each of the four skill areas measured by the survey.

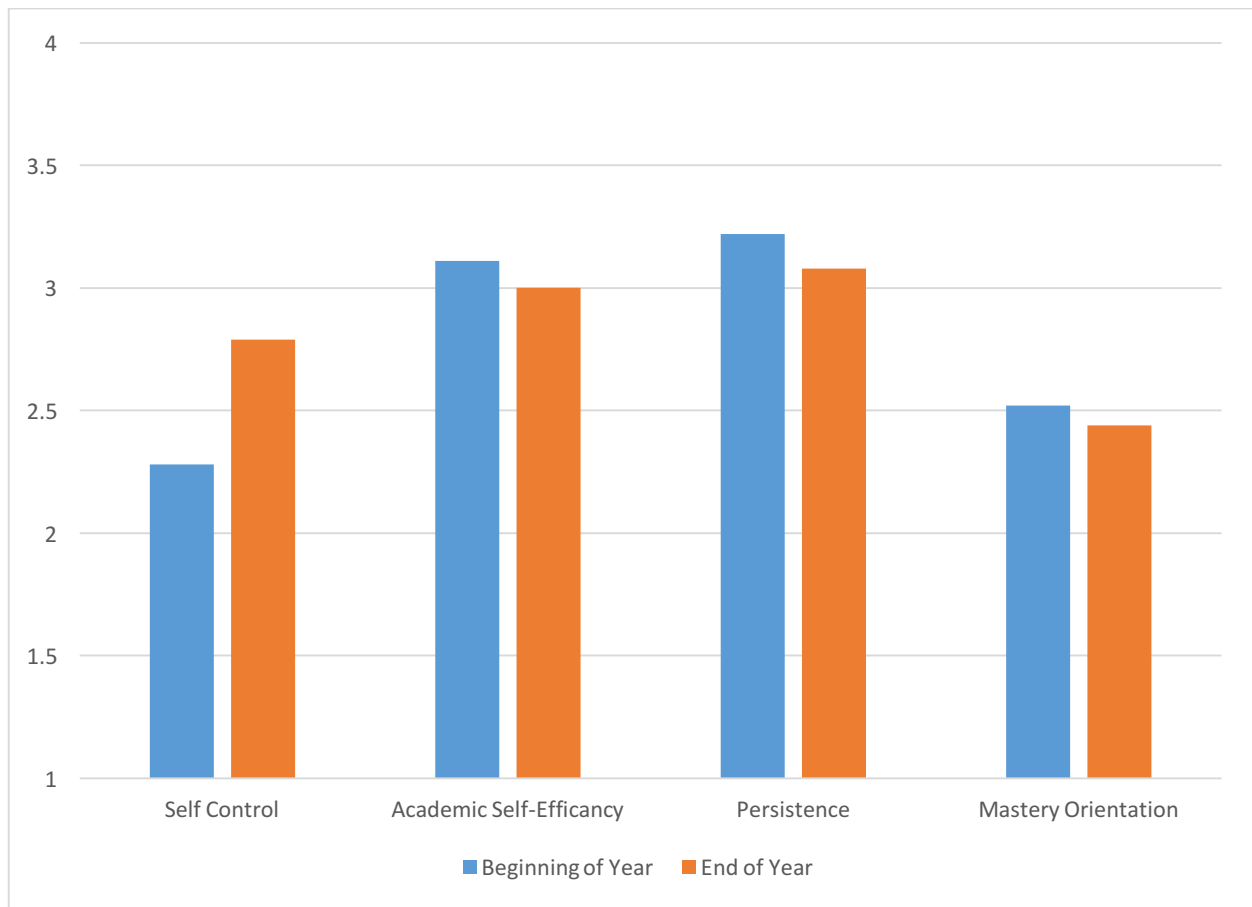
To determine if skill scores increased throughout the school year, a series of four paired sample t-tests were performed to compare the average scores for each skill area. The only statistically significant

increase found was in the area of *Self Control*. Figures are shown in the table below. Although the other three areas showed gains, the gains were not statistically significant.

Table 4. Skill Gains as Measured by Student Survey – Beginning to End of Year

Skill	Sample Size	Pre Score Mean	Pre Score Standard Deviation	Mid Score Mean	Mid Score Standard Deviation	p-value	Statistically Significant?
Self-Control	33	2.28	0.57	2.79	0.64	0.02	Yes
Academic Self-Efficacy	33	2.11	0.70	3.00	0.77	0.19	No
Persistence	33	3.22	0.63	3.08	0.75	0.11	No
Mastery Orientation	33	2.52	0.87	2.44	0.82	0.31	No

Chart 2. Skill Gains as Measured by Student Survey – Beginning to End of Year





According to the *Child Trends* scoring guide, a student’s self-perception of his or her behavior may differ from others’ perceptions. *Child Trends* recommends that the teacher’s score be used if the student and teacher scores are discrepant since “teachers are likely a more reliable reporter on these skills.” Indeed, Brackett, Rivers, Shiffman, Lerner, and Salovey (2006) found that self-ratings were not strongly correlated with performance measures of emotional intelligence nor did self-ratings predict real-time social competence. Roberts, Zeidner, and Matthews (2001) also advocate performance-based measures over self-ratings as being more likely to validly assess emotional intelligence.

These results suggest that the *Empowering Education* curriculum has a positive impact on certain social and emotional skills, specifically, those associated with persistence, self-control, and social competence.

## **Recommendations**

The evaluation of the *Empowering Education* program should continue, especially as additional schools adopt the program. Efforts should be made to ensure students from all grade levels complete both the beginning and end-of-year survey – possibly as a self-assessment. Office referral rates and suspension rates could provide additional program evaluation data. In addition, behavioral observations of students could provide a rich source of data for evaluation of the *Empowering Education* curriculum.

## **References**

- Brackett, M. A., Rivers, S. E., Shiffman, S., Lerner, N., & Salovey, P. (2006, Oct). Relating emotional abilities to social functioning: A comparison. *Journal of Personality and Social Psychology, 91*(4), pp. 780-795.
- Roberts, R. D., Zeidner, M., & Matthews, G. (2001). Does emotional intelligence meet traditional standards for an intelligence? Some new data and conclusions. *Emotion, 1*(3), pp. 196-231.