

Promoting Resilience: Social-Emotional Learning Sustenance in the Monarch School Project



Monach School Project | The Jacobs Institute for Innovation in Education



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Learning Sustenance in the Monarch School
Project



monarch school
education. opportunity. transformation.



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The Monarch School Project

Monarch School serves approximately 300 students from kindergarten through twelfth grade. In serving these students, the Monarch School Project (MSP) embodies its mission to nurture “resilience in unhoused youth and their families.” Consequently, MPS students are empowered “to influence their own growth in the areas of academic success and social emotional learning.” In the last 30 years the Monarch School has grown and transformed itself in the same way it nurtures its own student’s growth and transformation.

In 1987, The Progressive Learning Alternative Center for Education (The “P.L.A.C.E”) was funded as a drop-in center and staffed with a single teacher to meet the needs of this student population. In 1998, the students re-named The P.L.A.C.E and the Monarch School was born. The following year the Monarch School Project was formed as a nonprofit corporation. Currently the school is a public-private partnership between the San Diego County Office of Education and the nonprofit Monarch School Project, a 501(c)(3) corporation. This unique partnership allowed Monarch School and the Monarch School Project to relocate to a state-of-the-art facility, in 2013, specifically designed to meet its growing programming needs and to increase its capacity.

1.1 Social Emotional Learning

Social-emotional learning (SEL) is a process consisting of self-awareness, social awareness, relationship skills, self-management, and responsible decision making, according to



the framework of the Collaborative for Academic, Social, and Emotional Learning¹. The Monarch School adopts this SEL framework in its pillars, principles, and programs.

Table 1 CASEL framework at Monarch

CASEL Framework	Monarch Pillars	Monarch Principles	Monarch Program Examples
Academic Learning	Academically Curious	Individualized Competency-based Empowering Projects	<ul style="list-style-type: none"> ● Academic Intervention ● Leveled Up for Learning ● Saturday School
Social Learning	Socially Minded	Relationships Community Diversity Passion	<ul style="list-style-type: none"> ● Butterfly Boutique ● Family Dinner ● Monarch After School
Emotional Learning	Emotionally Aware	Trauma Informed Strengths-based Restorative Healing	<ul style="list-style-type: none"> ● Behavior Intervention Support (BIS) ● Therapeutic Arts ● Clinical Mental Health
	Life Skills Oriented	Agency Soft Skills Work-based Learning Career Pathways	<ul style="list-style-type: none"> ● Pathways to Employment ● Career and College Readiness

¹ CASEL (n.d.). What is the CASEL framework? <https://casel.org/fundamentals-of-sel/what-is-the-casel-framework/>



SEL programs are crucial not only for social and emotional outcomes, but also for attitudes, behavior, and academic performance². More specifically, SEL programming has been associated with 11 percentile-point gains in academic performance².

Homeless or unhoused youth are a growing population of students in the United States³. According to the National Education Association, approximately 1.5 million students have experienced homelessness at some point in the past 3 years. Students who are unhoused face increased vulnerabilities and academic risks. With less than a third reaching reading proficiency⁴ and only 25% reaching graduation, students who are unhoused achieve at levels lower than the national average and lower than students living in poverty^{3,5}. These figures indicate that there is unique vulnerability and needs associated with living and learning as an unhoused student.

Some of these unique needs are social-emotional in nature. Students who are unhoused are at higher risk for experiencing childhood physical and/or sexual abuse, with 84% screening positive for some form of abuse⁶. Additionally, unhoused youth are more likely to meet criteria for a psychiatric or behavioral disorder, with some studies showing as many as 86% meeting criteria for a psychiatric disorder, and more than half qualifying for a diagnosis of a disruptive

² Durlak, J. A., Weissberg, R. P., Dymicki, A. B., Taylor, R. D., & Schellinger, K. B. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development*, 82(1), 405-432. <https://doi.org/10.1111/j.1467-8624.2010.01564.x>

³ Sparks, S. D. (2019). Schools finding record numbers of homeless students, study says. *Education Week*. <https://www.edweek.org/leadership/schools-finding-record-numbers-of-homeless-students-study-says/2019/03>

⁴ Walker, T. (2020). 'They're invisible': Number of homeless students reaches new high. *NEA News*. <https://www.nea.org/advocating-for-change/new-from-nea/theyre-invisible-number-homeless-students-reaches-new-high>

⁵ National Center on Family Homelessness. (2009). *Annual Report*.

⁶ Keeshin, B. R., & Campbell, K. (2011). Screening homeless youth for histories of abuse: Prevalence, enduring effects, and interest in treatment. *Child Abuse & Neglect*, 35(6), 401-407. <https://doi.org/10.1016/j.chiabu.2011.01.015>



behavioral disorder^{7,8}. Some studies indicate that previously unhoused and never unhoused adolescents have different levels of coping behaviors, especially related to social support coping⁹. Even among unhoused youth, certain populations are at greater risk for posttraumatic stress disorder, including those with greater levels of transience, lower self-esteem, and alcohol problems¹⁰. Unhoused youth may also struggle with self-regulation skills, as high home instability has been correlated to poorer effortful and impulsivity control in students as young as those in preschool¹¹.

1.2 The Monarch School Project Programs

Recognizing the distinct and intersecting academic, physical, and psycho-social challenges that come with the experience of being unhoused, Monarch School Project (MSP) created a programmatic set that aims to heal and bridge the gaps resulting from the trauma of homelessness. The Monarch School Project seeks to combat these risk factors with social-emotional learning, academic learning, and life skills programs. This is accomplished by aligning MSP's programmatic outcomes to the following four pillars of focus: *Academically Curious*, *Emotionally Aware*, *Life Skills Oriented*, and *Socially Minded*, and adhere themselves to the

⁷ Cauce, A. M., Paradise, M., Ginzler, J. A., Embry, L., Morgan, C. J., Lohr, Y., & Theofelis, J. (2000). The characteristics and mental health of homeless adolescents: Age and gender differences. *Journal of Emotional and Behavioral Disorders*, 8(4), 230-239. <https://doi.org/10.1177/106342660000800403>

⁸ Ginzler, J. A., Garrett, S. B., Baer, J. S., & Peterson, P. L. (2007). Measurement of negative consequences of substance use in street youth: An expanded use of the Rutgers Alcohol Problem Index. *Addictive Behaviors*, 32(7), 1519-1525. <https://doi.org/10.1016/j.addbeh.2006.11.004>

⁹ Menke, E. M. (2000). Comparison of the stressors and coping behaviors of homeless, previously homeless, and never homeless poor children. *Issues in Mental Health Nursing*, 21(7), 691-710. <https://doi.org/10.1080/01612840050207617>

¹⁰ Bender, K., Ferguson, K., Thompson, S., Komlo, C., & Pollio, D. (2010). Factors associated with trauma and posttraumatic stress disorder among homeless youth in three U.S. cities: The importance of transience. *Journal of Traumatic Stress*, 23(1), 161-168. <https://doi.org/10.1002/jts.20501>

¹¹ McCoy, D. C., & Raver, C. C. (2014). Household instability and self-regulation among poor children. *Journal of Children & Poverty*, 20(2), 131-152. <https://doi.org/10.1080/10796126.2014.976185>



following research-based approaches: Positive Behavioral Interventions and Supports (PBIS¹²), Trauma Informed Care¹³, Social Emotional Learning¹, Strengths Based¹⁴, and Restorative Practices¹⁵. These programs include: after school enrichment, athletics, clinical mental health, college and career exploration, therapeutic arts and social growth opportunities. Additionally, some programs focus solely on meeting basic needs of students and their families, such as the Butterfly Boutique, family dinner, housing, and general social support services. Below are programmatic summaries provided at MSP.

Academic Intervention: MSP’s academic intervention program pairs high quality instruction with targeted interventions to empower students to engage in their learning. Through this program, students receive one-on-one and small group support inside and outside of the classroom, in the areas of literacy, mathematics and other subjects.

- **Leveled Literacy¹⁶ Intervention:** An academic intervention program where Elementary School students receive individualized, targeted intervention to help them increase their reading grade levels. Monarch School Project purchased this curriculum to build the Leveled Up for Learning program. This program maximizes impact by implementing a pre and post assessment, grouping students by assessment level and pairing them with highly trained tutors.
- **Saturday School:** MSP’s Saturday school is a space designed to inspire students to show up for themselves and for their peers. It is not mandatory or punitive. It is

¹² Center on PBIS. (2022). Positive Behavioral Interventions & Supports. www.pbis.org

¹³ Levine, P.A., & Kline, M. (2006). *Trauma through a child’s eyes: Awakening the ordinary miracle of healing*. North Atlantic Books.

¹⁴ Hammond, W., & Zimmerman, R. (n.d.). A strengths-based perspective. [White paper]. Resiliency Initiatives. https://www.esd.ca/Programs/Resiliency/Documents/RSL_STRENGTH_BASED_PERSPECTIVE.pdf

¹⁵ Costello, B., Wachtel, J., & Wachtel, T. (2019). *The restorative practices handbook* (2nd ed.). IIRP.

¹⁶ Fountas & Pinnell Literacy (n.d.). *Leveled Literacy Intervention*. <https://www.fountasandpinnell.com/li/>



a space where students choose to show up and catch up or get ahead. During Saturday School, students have access to technology, WIFI, tutors, and to each other. In addition, students have breakfast and lunch.

After School Enrichment: The High School Afterschool program at MSP is about community, and fostering students' sense of belonging is a priority. For this reason, MSP created a safe space where students can show up authentically, feel included, and have a voice in determining their after-school time. Students can choose from various activities such as: academic support, athletics, arts, dance, e-sports, leadership, internships, and outdoor activities. Students also have the option to have a place and spend their free time within the MSP Afterschool community.

Alumni Support Program: This program aims to work alongside alumni as they pave their way towards independent living and financial independence. This program gives alumni access to a caring adult community, individualized personal goals, financial planning, college and career assistance, connection to housing and other social services resources, and mental health support. The path to independence differs for each alumnus. MSP continues to support students after graduation until they reach their goals.

Athletics: MSP offers Basketball, Cross Country, Flag Football, Futsal, Soccer, Volleyball, and Track and Field via recreational (elementary and middle school teams) and interscholastic (high school teams competing as part of the California Interscholastic Federation, San Diego Section) teams. Through this program, MSP seeks to influence students' learning, empower them to understand the correlation between success and hard work, the value of teamwork and collaborative work systems, and the importance of consistent and punctual attendance, structure, and following instruction. Monarch coaches utilize athletics as the last



classroom of the day and use this program as an opportunity that encourages self-reflection and allows students to recognize their strengths and their capacity to achieve their goals.

Behavior Intervention Support (BIS): The behavior intervention support program leads MSP’s Positive Behavioral Interventions and Supports (PBIS) initiatives. Trained behavior specialists staff the BIS program providing students with emotional learning opportunities and a safe space to develop their personal strengths, appropriately express emotions, moderate behaviors, and advocate for themselves. Behavior specialists work with students in the following sub-programs:

- **Check and Connect:** “Check & Connect” is one of MSP’s original PBIS approaches that aims to help students master social-emotional or behavioral concepts within the SEL model. It involves matching students with a behavioral specialist to set goals around positive behaviors, check-in and build connections to self and the community. Students and behavioral specialists work together for three to six months depending on the individual goals.
- An emotional regulation tool kit taught through the BIS program. It is intended to help students decrease heart rate and/or de-escalate behaviors to bring them back to baseline. These strategies are used with students who have been removed or have removed themselves from the classroom and other spaces so that they are able to safely reintegrate into the community. This process typically happens in MSP’s **Serenity Room:** a safe space for students to use when they need a break to calm down. In this space students learn and practice self-regulation skills and reflect on issues that arise throughout the day.



Butterfly Boutique: The Butterfly Boutique is our free on-campus “store.” Every six to eight weeks, students can “shop” from a variety of lightly used and new clothing, shoes, and hygiene products. The Butterfly Boutique protects the student’s personal dignity. It gives them choice by allowing them to have control over their image and hygiene while they are at school, regardless of their life circumstances. The space is organized and run by a team of dedicated volunteers who help receive donations, sort and organize, and act as personal shopping assistants during shopping days. Students have access to the boutique in between their shopping days in emergency situations and to meet immediate needs.

Career and Job Readiness: The Career Readiness program is designed for high school students to develop the skills required to obtain and retain employment. Students are engaged in career exploration opportunities through assessments, guest speakers, and field trips. The goal of this program is to help students explore their passions and interests and develop a vision for the future that includes a successful career, and a clear pathway to get there. Through this program students can also develop their entrepreneurship skills and gain real-world experience through a paid internship.

Clinical Mental Health: This program provides therapeutic services as a learning support service that aims to help students address social, emotional, psychological, and behavioral barriers to learning. The goal is to provide comprehensive therapeutic services to students and their families that focus on advocacy, education, and intervention inside and outside of the classroom. Service delivery methods include, clinical therapy, play therapy, and art therapy among others. Mental health associates and trainees provide these services.

College Readiness: Our College Readiness Program is a year-round program centered around building a school-wide “college-going culture” at Monarch School. This program seeks



to build an environment, attitudes and practices that encourage students and their families to actively seek the information and tools needed to access higher education. It also supports juniors and seniors specifically, through their college application process including financial aid and scholarships. Additionally, supporting students through the college application process involves spending time with students either in small groups or one-on-one to complete the different applications within the specified deadlines as well as with the transition from high school to college.

Parent Engagement Program: The goals of this program are to increase parent engagement on campus, empowering parents to take an active role in their children’s education, and to provide educational opportunities that revolve around their own healing, growth, and self-advocacy. Through MSP’s Parent Center, families can access services that help alleviate food and housing insecurity, and mental health stressors. It also connects families to community services such as continuing education, emergency housing, food pantries, legal aid, medical care, and public transportation.

- **Family Dinner:** During Family Dinners, Monarch School Project welcomes all students, their families, teachers, and staff to enjoy a warm meal as members of the Monarch community. It is an opportunity to connect, foster a sense of belonging, and build social capital.
- **Keys to opportunities Housing Program:** This program provides MSP families with long term rapid re-housing through a partnership with San Diego Housing Commission and the Community Research Foundation/Mobile Adolescent Services Team. This program also has a solutions-focused educational component



to teach parents how to find and maintain housing, navigate landlord-tenant relationships, and create personal growth plans.

Therapeutic Arts: MSP's Therapeutic Arts¹⁷ Program offers students and families a range of experiences in the arts, dance, play, and ritual designed to help them grow emotionally and socially, create change in their life, and achieve success as defined by them. In this program, offered during and after school, students and families can access to one-on-one and small group expressive arts therapy, expressive arts and community building classes, and identity-based support groups.

The Current Study

MSP partnered with researchers at the Jacobs Institute for Innovation in Education to conduct a study to show social-emotional learning trends and sustenance of these skills over three years. This study was also designed to assess programmatic impacts of specific program components of the Monarch School Project. These programs include those previously described in [Section 1.2](#).

2.1 Participants

Monarch School students in grades 3 through 12 were invited to participate in the study each year. Participants included in the analysis for this report included students who had data at time points 1-5 for growth curve analysis and at times 1 and 5 for dependent samples *t*-tests. The sample for growth curve analysis was $n = 31$ students across all grades. The sample for dependent samples *t*-tests included 46 students for most variables and 91-92 students for the

¹⁷ Expressive Arts Institute (n.d.). <https://www.expressiveartsinstitute.org/>



school climate variables added at Time 4 and Time 5. Analyses between consecutive time points had varying sample sizes ranging from 62-95.

Despite these varying sample sizes, this project collected data from a total of 263 Monarch students. Sample loss occurred for several reasons, including students entering Monarch school later in the three-year span, students reaching Grade 12, and students leaving the Monarch school or missing data collection points for unknown reasons.

The starting population for the three-year longitudinal study included 115 MSP students from grades 5-12. Table 2 shows the demographics of this initial population by grade level.

Table 2 Student demographics

Grade	N	Age	Gender	Race
5	18	10.33	12 female 6 male	1 = Black 2 = White 12 = Latino/a/Mexican American 3 = Multiracial
6	18	11.39	7 female 11 male	3 = Black 2 = White 10 = Latino/a/Mexican American 2 = Multiracial 1 = Jamaican
7	18	12.06	9 female 9 male	2 = Black 3 = White 9 = Latino/a/Mexican American 2 = Multiracial 1 = Filipino
8	16	13.13	8 female 8 male	2 = Black 9 = Latino/a/Mexican American



				4 = Multiracial
9	14	14.14	5 female 9 male	1 = Black 10 = Latino/a/Mexican American 3 = Multiracial
10	14	15.29	8 female 6 male	10 = Latino/a/Mexican American 1 = Multiracial
11	10	16.20	7 female 3 male	1 = Black 6 = Latino/a/Mexican American 1 = Multiracial 1 = White
12	7	17.29	4 female 3 male	1 = Black 6 = Latino/a/Mexican American

The population of students at MSP is 66% Hispanic/Latino, 15% Black/African American, 9% Multiracial, 7% White/Caucasian, and 2% Asian/Pacific Islander.

2.2 Data Collection Instruments

The three-year data collection included a survey of several research-based instruments. The Monarch School Project focused on four pillars, academic, social, emotional, and life skills. Researchers and Monarch evaluation staff asked leaders in each pillar to describe the programs underlying their pillar and their specific aims and goals. These aims and goals were then compared to existing constructs and measures, leading to the selection of several instruments that aligned with the Monarch pillars.



Instruments included a researcher developed measure of Restorative Mindset, the Panorama Education Social-Emotional Learning Measure, the Child and Youth Resilience Measure, the Rosenberg Self-Esteem Scale, and the Children’s Hope Scale. Table 3 shows these scales, their psychometric properties in previous studies and the current study, and which constructs are measured using the scale.

Response rates across time points were high. 115 students took the survey in 2016-2017, 110 in 2017-2018 and 130 in 2018-2019. The increase in response rate from 2017-2018 to 2018-2019 is due to expanding the target population from 5th-12th grade to 3rd-12th.

Table 3 Scales and internal consistency values across years

Scale	Survey Items	Time 1 Alpha 2016	Time 2 Alpha 2017 SP	Time 3 Alpha 2018 SP	Time 4 Alpha 2018 Fall	Time 5 Alpha 2019 SP
Restorative Mindset	5-9	.62	.74	.74	.63	.68
Panorama SEL						
Social Awareness	10-17	.72	.76	.72	.77	.78
Sense of Belonging	18-22	.80	.85	.80	.78	.82
Emotional Regulation	23-27	.79	.76	.84	.80	.83
Valuing of School	28-31	.76	.67	.72	.63	.71
Grit	32-36	.79	.76	.71	.78	.79
Child and Youth Resilience						
Social Skills/Social Navigation	37-40	.65	.64	.74	.69	.65
Rosenberg Self-Esteem Scale						
Self-esteem	41-45	.86	.90	.87	.88	.88
Children’s Hope Scale						
Agency	46-51	.87	.84	.84	.86	.88
AIR Deeper Learning Study						
Collaboration Skills	52-55	NA	NA	.73	.67	.71
Panorama School Climate Survey						



Student Engagement	56-60	NA	NA	NA	.89	.86
School Safety	61-65	NA	NA	NA	.77	.75

Restorative Mindset

Restorative Mindset represents a researcher developed construct to measure Monarch’s focus on restorative practices. This scale consists of 5 Likert-type items. Students respond to these items on a scale of 1 to 5. For item 1, 1 represents “Not At All” and 5 represents “A Lot.” For items 2-5, 1 indicates strong disagreement and 5 represents strong agreement. Items are provided in table 4 below. This measure demonstrates promising reliability in its 2016 administration, where alpha = .62, and validity where Restorative Mindset is positively and significantly correlated with other measured constructs such as social awareness ($r = .60$), agency ($r = .53$), grit ($r = .48$), and emotion regulation ($r = .40$).

Table 4 Restorative Mindset items

Survey Item	Item Text
5	I am helpful to my school community.
6	I understand why I do the things I do.
7	I am trying my best to make good decisions.
8	I know if I make a mistake, I can make things right.
9	I am using what I’ve learned to become a better person.

Panorama Education Social-Emotional Learning Assessment

The Panorama Education Social-Emotional Learning Assessment measures key social-emotional competencies according to the CASEL framework. Panorama Education’s SEL



measures have been used with over 600,000 students in schools across the United States¹⁸.

The measures are structured to capture (a) students competencies, such as the grit items used in Monarch’s survey, (b) student supports and environment, such as sense of belonging and school safety items used by Monarch, and (c) teacher skills and perspectives. These measures are freely available to download here: <https://www.panoramaed.com/social-emotional-learning-sel>. Table 5 shows the constructs and items that Monarch used from the Panorama Ed SEL assessment. Each of the constructs measured demonstrates reliability, with Cronbach’s alpha ranging from .63-.85.

Table 5 Panorama Education SEL Assessment constructs and items

Construct	Survey Item	Item Text
Social Awareness	10	How carefully do you listen to what other people have to say?
	11	How much do you care about other people’s feelings?
	12	How often do you say nice things about others?
	13	How well do you get along with students who are different from you?
	14	How clearly are you able to describe your feelings?
	15	When others disagree with you, how respectful are you of their opinions?
	16	How much are you able to stand up for yourself without putting others down?
	17	How much are you able to disagree with others without starting an argument?
Sense of Belonging	18	How well do people at your school understand you as a person?
	19	How connected do you feel to the adults at your school?
	20	How much respect do students in your school show you?
	21	How much do you matter to others at this school?
	22	Overall, how much do you feel like you belong at your school?
Emotional	23	How likely are you to cheer yourself up when you’re in

¹⁸ Panorama Education. (n.d.). *Panorama for Social Emotional Learning: Measure and understand social-emotional learning*. <https://www.panoramaed.com/social-emotional-learning-sel>



Regulation		a bad mood?
	24	When everybody around you gets angry, how calm can you stay?
	25	How often are you able to control your emotions when you need to?
	26	Once you get upset, how often can you get yourself to calm down?
Valuing of School	27	When things go wrong for you, how calm are you able to remain?
	28	How interesting do you find the things you learn in school?
	29	How often do you use ideas from school in your daily life?
	30	How important is it to you to do well in school?
Grit	31	How useful do you think school will be to you in the future?
	32	How often do you stay focused on the same goal for a long time?
	33	If you fail to reach an important goal, how likely are you to try again?
	34	How focused can you stay when there are a lot of distractions?
	35	If you have a problem while working towards an important goal, how likely are you to keep working?
	36	How likely are you to keep trying at one of your goals this year?

Child and Youth Resilience

The Child and Youth Resilience measure (CYRM) has been used across communities to measure key components of resilience. A recent meta-analysis suggested that the CYRM assesses resilience with validity across age and sex groups¹⁹. Items from the Child and Youth Resilience Measure were selected to measure social skills/social navigation within the pillar of

¹⁹ Renbarger, R. L., Padgett, R. N., Cowden, R. G., Govender, K., Yilmaz, M. Z., Scott, L. M., ... & Křeménková, L. (2020). Culturally Relevant Resilience: A Psychometric Meta-Analysis of the Child and Youth Resilience Measure (CYRM). *Journal of Research on Adolescence*, 30(4), 896-912.



social growth. The four items selected measure social/cultural domains of resilience as indicated by Rensburg and colleagues (2017). These measures demonstrate fair reliability in the current study, with Cronbach’s alpha ranging from .64-.74.

Table 6 Child and Youth Resilience items

Survey Item	Item Text
37	I know how to behave around different types of people.
38	I know where to go at my school to get help.
39	I am able to show others that I am growing up and can act responsibly.
40	I am able to learn things that will be useful when I am older.

Rosenberg Self-Esteem Scale

Five items were selected from the Rosenberg Self-Esteem Scale²⁰. This scale demonstrates high reliability with a Guttman coefficient of .92 and test-retest reliability of .85-.88^{14,21}. The scale also demonstrates validity with correlations following anticipated directions for depression and anxiety. The items selected for use in the current study also demonstrated high reliability with Cronbach alpha values ranging from .86-.90.

Table 7 Rosenberg Self-esteem Items

Survey Item	Item Text
41	I am happy with myself.
42	I feel there are many good things about me.

²⁰ Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

²¹ Ciarrochi, J., & Bilich, L. (2006). Acceptance and commitment therapy. Measures package. *Unpublished manuscript, University of Wollongong, Wollongong, Australia.*



43	I am able to do things as well as most other people.
44	I feel that I am equal with others.
45	I have a positive attitude toward myself.

Children’s Hope Scale

The Children’s Hope Scale²² is a scale designed to measure students’ beliefs about their goals and interpersonal competencies. Prior and current administrations of the scale have demonstrated reliability and validity, with Cronbach alpha values of .72-.86¹⁶ and .84-.88 in the current administration. Further, items have been correlated with other measures of hope and function similarly among different ages, sexes, and races¹⁶. Items from the Children’s Hope Scale were selected to measure Agency Thoughts within the life skills pillar.

Table 8 Children’s Hope Scale items

Survey Item	Item Text
46	I think I am doing pretty well in my life.
47	I can think of ways to get the things in life that are most important to me.
48	I am doing just as well as other kids my age.
49	When I have a problem, I can come up with lots of ways to solve it.
50	I think the things I have experienced in the past will help me in the future.
51	Even when others want to quit, I know that I can find ways to solve the problem.

AIR Deeper Learning Study

²² Snyder, C. R., Hoza, B., Pelham, W. E., Rapoff, M., Ware, L., Danovsky, M., ... & Stahl, K. J. , "The development and validation of the Children’s Hope Scale," *Journal of Pediatric Psychology*, 22 (3), 1997, pp. 399–421.



To measure Collaboration Skills, items were selected from the AIR Deeper Learning Study²³. This scale demonstrates reliability in AIR and Monarch administrations, with Cronbach alphas of .91 and .67-.73, respectively. Items included in the Monarch study are shown below.

Table 9 AIR Deeper Learning Study items

Survey Item	Item Text
52	I make sure to be prepared and bring needed materials.
53	I pay attention when my classmates talk.
54	I consider everyone’s ideas.
55	I share my ideas with the group.

Panorama School Climate Survey

After 2018, items from the Panorama Education School Climate survey were added to the instrument measuring Social-Emotional Learning for Monarch. Selected items measured student engagement and school safety. Items measuring school safety were reverse coded so that higher scores represented greater feelings of safety at school.

Table 10 Panorama School Climate Survey items

Construct	Survey Item	Item Text
Student Engagement	56	How excited are you about going to your classes?
	57	How focused are you on the activities in your classes?
	58	In your classes, how excited are you to participate?
	59	When you are not in school, how often do you talk about ideas from your classes?

²³ American Institutes for Research. (2015). Deeper Learning. <https://files.eric.ed.gov/fulltext/ED571850.pdf>



	60	How interested are you in your classes?
School Safety	61	How often are people disrespectful to others at your school?
	62	How likely is it that someone from your school will bully you online?
	63	How often do you worry about violence at your school?
	64	If a student is bullied in school, how difficult is it for him/her to get help from an adult?
	65	How often do students get into physical fights at your school?

2.3 Data Collection Procedures

Consent forms were gathered for each participant. Each student completed the survey under an assigned research participant identification number to protect their anonymity. MSP Evaluation staff traveled to 3rd-12th grade classrooms with computers for each student to participate in the study. Data were collected from 2016-2019.

Analyses

3.1 Growth Trend Analysis

Dependent samples *t*-tests and growth curve models were fit to test for linear and non-linear growth over time. These models were fit according to the guidelines and specifications of Finch and French (2015). These models were fit independently for each SEL outcome and were fit using R (R Core Team, 2021) and the *lavaan* package. Graphical representations were created using *ggplot2*.



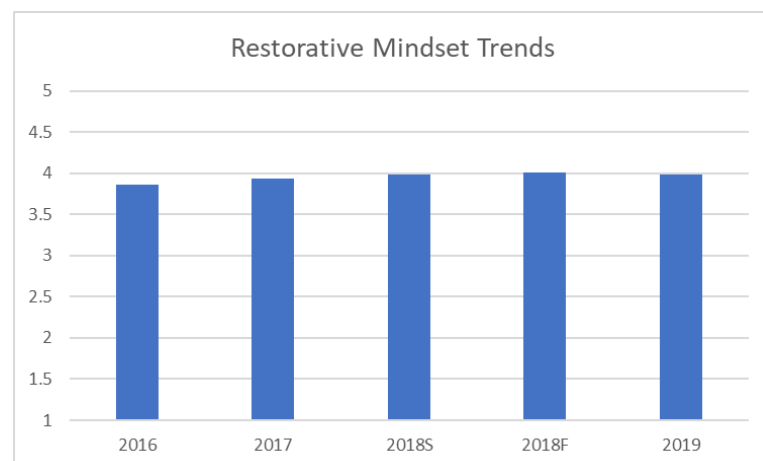
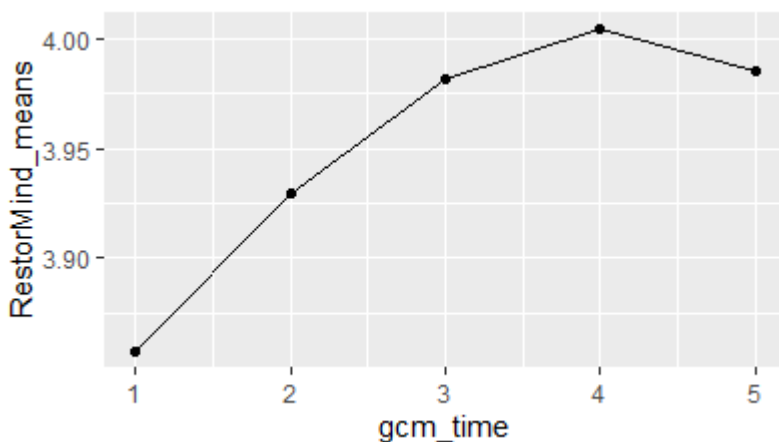
Results

4.1 2016-2019 Growth Trends

Restorative Mindset

A total of 46 students responded to surveys at Time 1 and Time 5 regarding their restorative mindset. **Twenty-one students showed some level of positive change, with their average restorative mindset scores increasing between Time 1 and Time 5.** Of these students, 21 showed a negative change, with their average restorative mindset decreasing from Time 1 to Time 5. A small percentage (around 9%) of students showed no change over time.

A dependent samples' t-test indicated that scores did not significantly differ from Time 1 to Time 5, $t(45) = -.5161, p = .6083$. Similarly, growth curve models indicated no significant linear ($z = -0.01, p = 0.61$) or quadratic change ($z = -0.04, p = 0.045$). **The absence of change suggests that Monarch students showed and maintained a relatively high average restorative mindset, with scores around 4 out of a possible 5.**

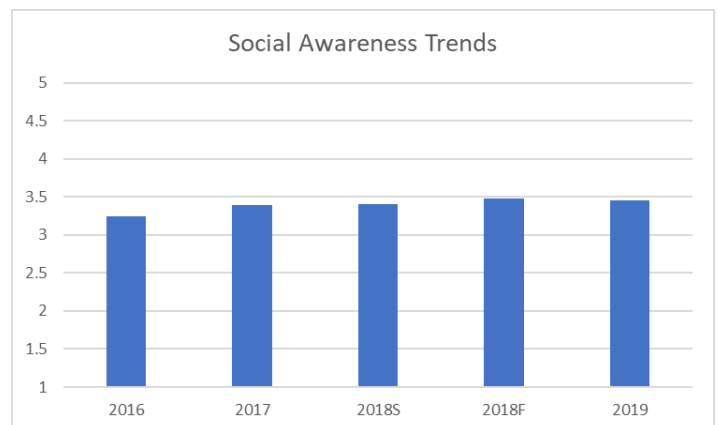
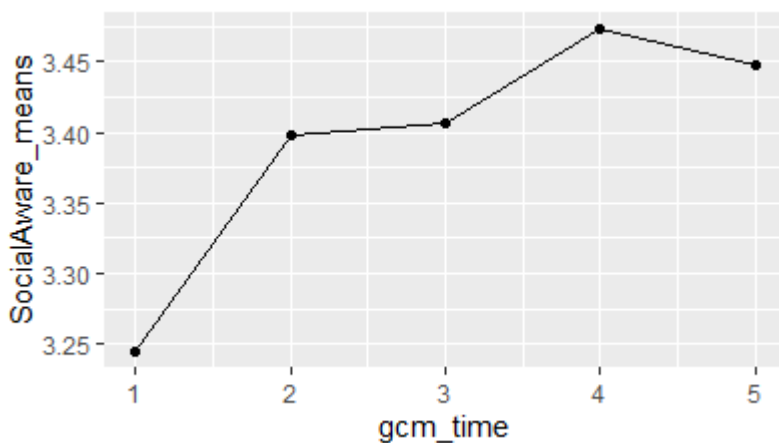




Social Awareness

A total of 46 students responded to surveys about their social awareness at Time 1 and Time 5. Of these students, **25 showed positive increases in their average level of social awareness over time**. 19 showed negative change in their average social awareness. Two students showed no change.

A dependent samples *t*-test was non-significant, $t(45) = -0.14, p = .8906$. This suggests that although there were some differences between social awareness at Time 1 and at Time 5, those differences were not significant. However, growth curve analyses indicated significant linear ($z = 3.191, p = .001$) and quadratic ($z = -3.555, p < .001$) growth over time. Taken together, this suggests that there is some significant change over time in social awareness, with some positive linear change showing increases in social awareness. However, there is also significant negative quadratic growth, suggesting that the growth is slowing over time. **Again, these values have changed slightly but students still show a moderate level of social awareness (around a 3.5 out of 5, on average).**

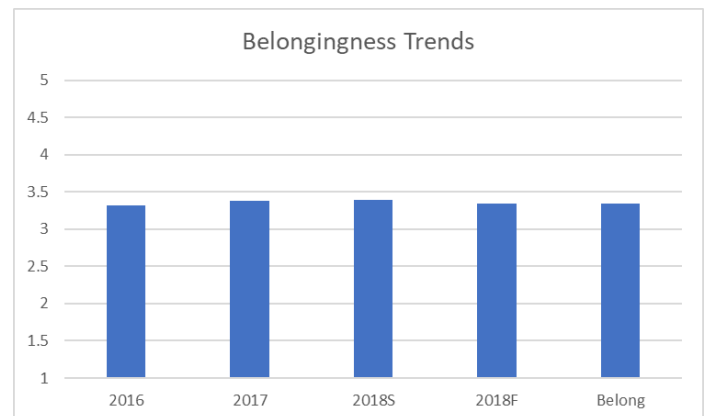
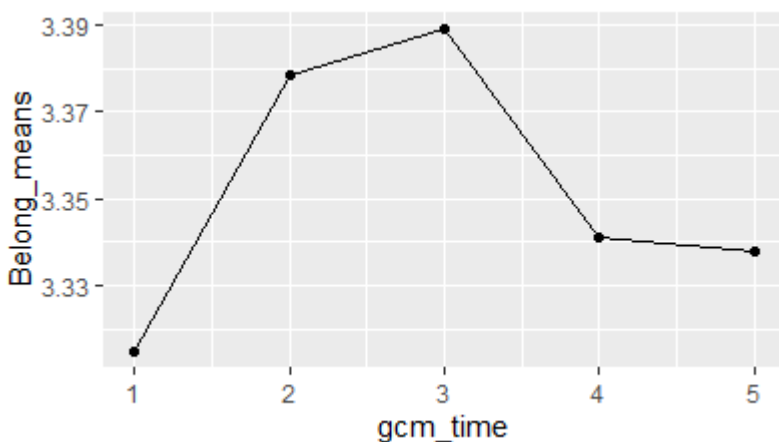




Belonging

A total of 46 students completed measures regarding their feelings of belonging at Time 1 and at Time 5. Of these students, **17 students showed increases in their feelings of belongingness over time**; however, 24 had lower average belongingness values at Time 5 than at Time 1, indicating that their feelings of belonging may have decreased over time. Five students had the same levels of belongingness over time.

Despite the descriptive differences in belongingness over time, a dependent samples *t*-test indicated that feelings of belongingness did not change significantly over time ($t(45) = 0.66, p = 0.513$). Growth curve models suggested no significant linear change over time ($z = -0.744, p = 0.457$) but some significant, negative quadratic change over time ($z = -2.644, p = .008$). **Taken together, this suggests that students' level of belongingness stayed around a 3.5 over time, indicating some feelings of belongingness at Monarch.**

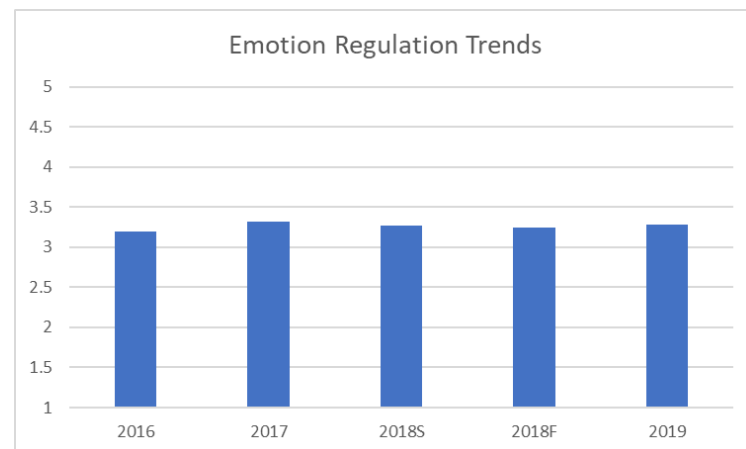
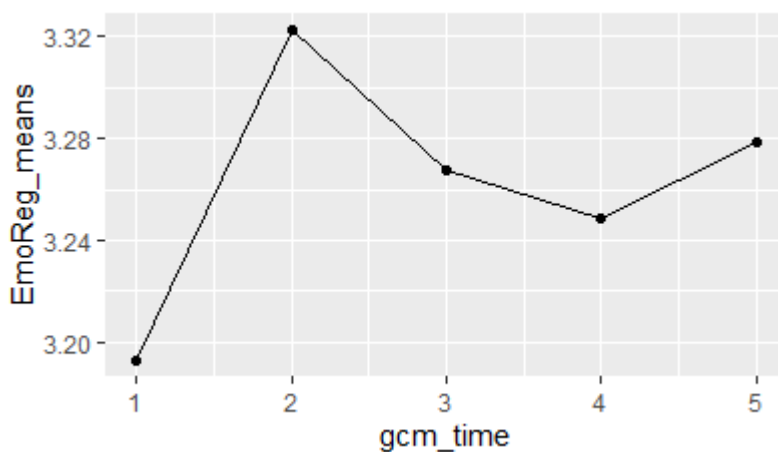




Emotional Regulation

Forty-six students responded at Times 1 and 5 regarding their emotional regulation. A **majority of students showed an increase in their emotional regulation from Time 1 to Time 5 ($n = 24, 52\%$)**. Fourteen students (30%) showed negative changes in their responses from Time 1 to Time 5, with average emotional regulation decreasing over time. Some students showed similar average emotional regulation over time ($n = 8, 17\%$).

A dependent samples t -test indicated that even though there were some changes at the individual level, these changes were not significantly different from Time 1 to Time 5 ($t(45) = -0.57, p = 0.574$). This is further supported by growth curve models that indicated no significant linear ($z = -0.44, p = 0.660$) or quadratic ($z = 0.914, p = 0.361$). **This indicates that there is no significant change in emotion regulation over time, and that students' emotional regulation stayed consistently around a 3.0-3.5, indicating some emotional regulation capabilities.**

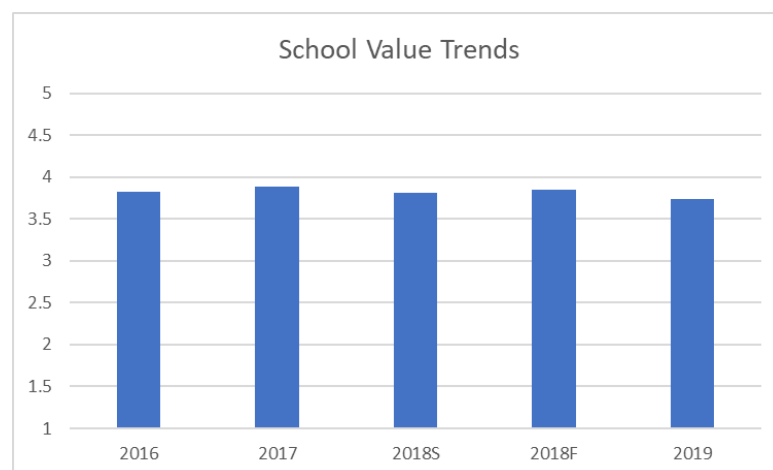
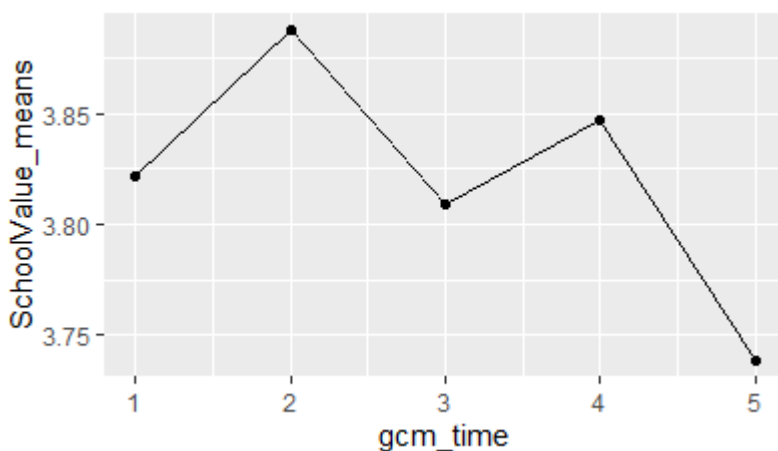




School Value

A total of 46 students responded to questionnaires about their valuing of school at Time 1 and Time 5. Thirteen students (28%) showed an increase in their valuing of school from Time 1 to Time 5, and a small percentage stayed the same ($n = 11$). A majority, 61% ($n = 28$), showed negative changes from Time 1 to Time 5, suggesting that their valuing of school decreased over time.

A dependent samples t -test indicated that the differences between Time 1 and Time 5 were significant, $t(45) = 2.5945, p = 0.01274$. The mean of Time 1 was 4, while the mean of Time 5 was 3.68. This indicates the mean at Time 5 was significantly lower than the mean at Time 1. Growth curve models were also fit to explore these changes over time. Growth curve models indicated significant, negative linear growth ($z = -3.564, p < .001$) but no significant quadratic growth ($z = .230, p = .818$). **Taken together, this indicates that school value significantly decreased over time, but those values are still above a 3.5 indicating some level of school value.**

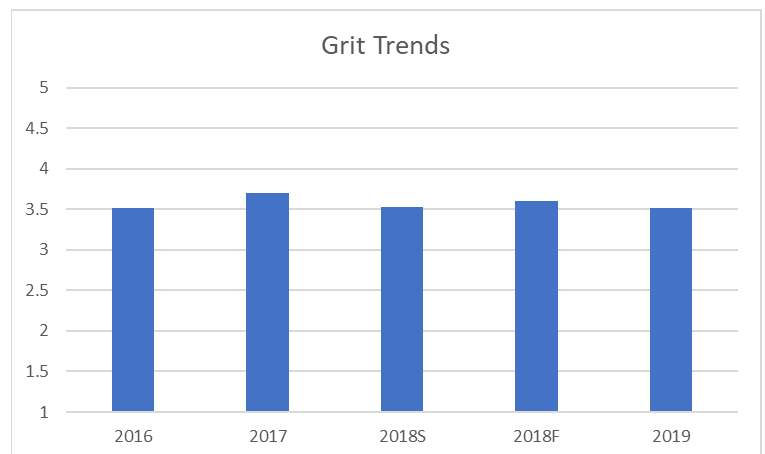
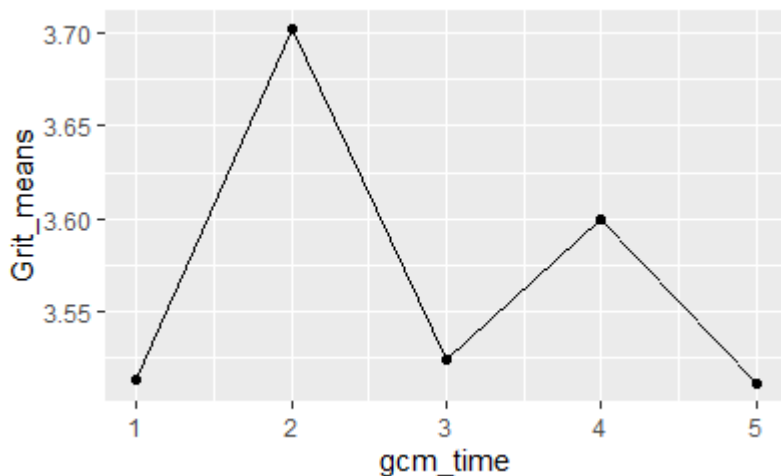




Grit

A total of 46 students completed Grit measures at Time 1 and Time 5. Of these 46 students, **14 (30%) showed positive change from Time 1 to Time 5**, indicating an increase in their Grit levels. In contrast, 30 (65%) showed negative change between those time points, while 2 stayed the same.

A dependent samples *t*-test showed that there was a significant difference in grit at Time 1 and at Time 5, $t(29) = 7.50, p < .001$. The mean at Time 1 was 4.02, while the mean at Time 5 was significantly lower at 3.32. Further, growth curve analysis showed that there is significant, negative linear growth over time, $z = -2.380, p = .017$, but no significant quadratic growth, $z = -.475, p = .635$. **Taken together, this suggests that students' grit declined over time, but that values stayed within the 3.0-4.0 range, showing at least some level of grit consistently.**



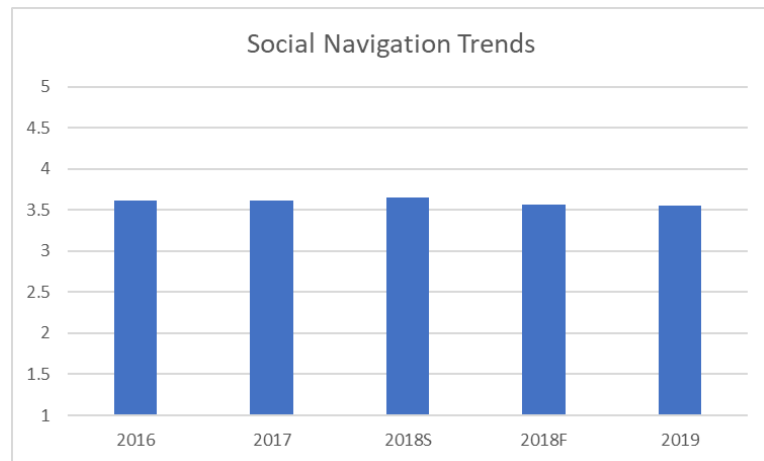
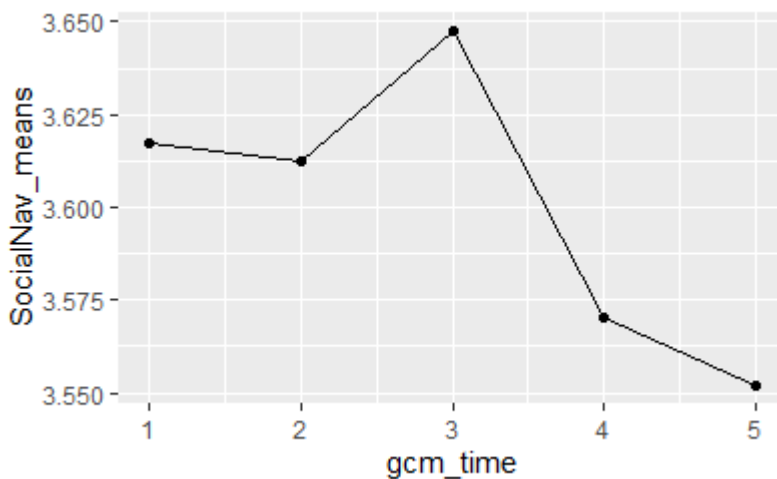
Social Navigation

A total of 9 out of 46 students (20%), or 1 in 5 students, showed positive change in their social navigation skills from Time 1 to Time 5. Twenty-three students (50%) showed



negative changes, while 14 (30%) had social navigation skills that stayed the same between time points.

A dependent samples *t*-test suggested that there were significant differences in the average social navigation skills between Time 1 and Time 5, $t(45) = 2.0662, p = .0446$. Specifically, the mean social navigation skills at Time 1 was 3.73, while it was 3.58 at Time 5. However, growth curve models show no significant linear or quadratic growth, $z = -1.311, p = .190$ and $z = -.946, p = .344$, respectively. **Overall, this shows that students' social navigation skills may have decreased some over time, but the values stayed above a 3.5 indicating some consistent social navigation skills.**



Self-esteem

A total of 20 (43%) out of 46 students showed positive changes in their self-esteem between Time 1 and Time 5. On the other hand, 22 (48%) students showed negative changes in self-esteem, and 4 showed no change.

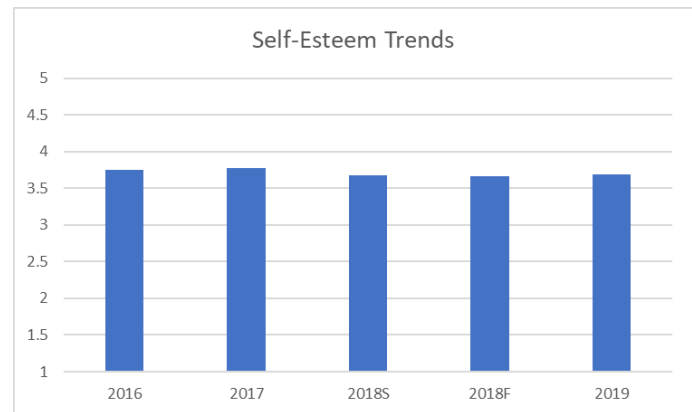
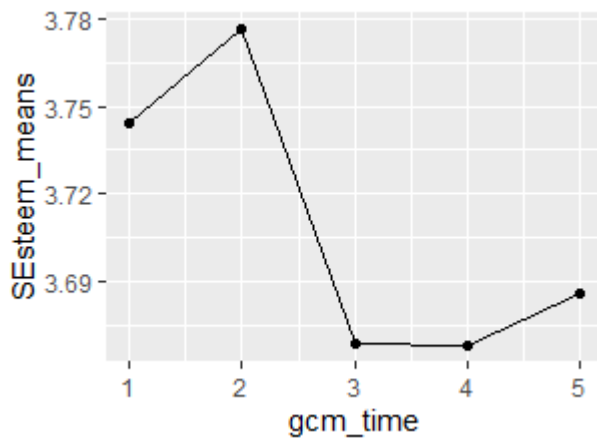
A dependent samples *t*-test showed no significant differences between self-esteem levels at Time 1 and at Time 5, $t(45) = 1.1429, p = 0.2591$. Furthermore, there is no significant linear (z



= -1.422, $p = .155$) or quadratic ($z = .197, p = .844$) growth in self-esteem over time. **Taken**

together, this suggests that students had consistent self-esteem across time points, with mean

levels of 3.78 and 3.62 at Time 1 and Time 5, respectively.



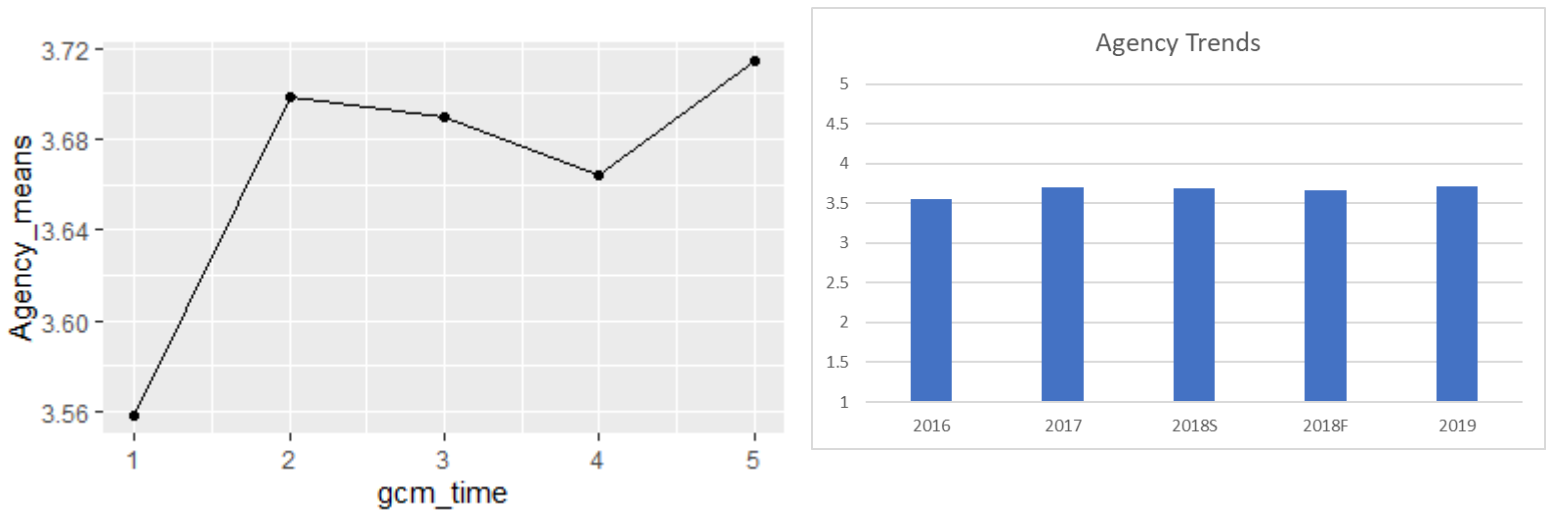
Agency

A total of 17 (38%) students showed positive change in their feelings of agency over time. Some students ($n = 25, 56%$) showed lower levels of agency at Time 5, and 3 students had agency levels that stayed the same.

A dependent samples t -test showed no significant differences in Time 1 and Time 5 mean levels of agency, $t(44) = 0.71, p = 0.48$. Similarly, growth curve analysis indicated no significant linear ($z = -1.08, p = .282$) or quadratic ($z = -.37, p = .71$) growth in agency levels over time. The mean levels of agency at Time 1 and Time 5 were, 3.74 and 3.64, respectively.



This shows that agency levels stayed consistently above a 3.5 over time, indicating that students consistently had feelings of agency.



Collaboration

Collaboration data were only collected at two different time points, Time 4 and Time 5.

A total of 92 students completed measures of collaboration at both time points. **A total of 41 (45%) students showed some level of positive change in collaboration between time points, showing that feelings of collaboration increased over time.** Thirty-six (39%) students showed negative change over time, while 15 (16%) showed similar levels of collaboration over time.

A dependent samples *t*-test showed no significant difference in collaboration between Times 4 and 5, $t(91) = -0.80, p = 0.4266$. The mean level of collaboration was 3.61 at Time 4 and



3.68 at Time 5. **This shows that students had higher levels of collaboration consistently, though they still have some room to grow.**

Student Engagement

A total of 91 students completed measures of their engagement over Time 4 and Time 5. Of these 91 students, **36 (40%) showed some level of positive change in their engagement over time, reflecting increases in student engagement.** An equal number of students showed negative change in their engagement levels ($n = 36, 40\%$). Some students showed no change in their engagement level ($n = 19, 21\%$).

A dependent samples t -test showed no significant differences in engagement at Time 4 and Time 5, $t(90) = 0.17, p = 0.8662$. This means that even though some students showed changes in engagement over time, those changes were not significant and engagement levels mostly stayed consistent. **The mean engagement levels were 3.25 and 3.24 at Times 4 and 5, respectively, indicating at least some level of consistent engagement in Monarch students.**

School Safety

A total of 92 students completed measures of their feelings of school safety at Time 4 and Time 5. **Of these 92 students, 46 (50%) students showed positive change, indicating that they felt safer at Monarch over time.** Thirty-three (36%) students showed some level of negative change in their feelings of safety, and 13 showed no change in their feelings of safety over time. Therefore, over 63% of students felt safe and either grew in that feeling of safety or stayed the same.

A dependent samples t -test showed no significant differences in Time 4 and Time 5 feelings of school safety, $t(91) = -1.43, p = 0.1571$. Safety level means were 3.32 and 3.45, at



Times 4 and 5, respectively. **Taken together, this suggests that students consistently felt some level of safety at Monarch and that did not change over time.**

Consecutive Time Point Analyses

To further explore the relationships in social-emotional constructs over time, we conducted dependent samples *t*-tests between consecutive time points to identify any differences using larger samples at each time point. The results of these analyses are shown in Table 11. The results suggest some differences between SEL variables at different time points. Social Awareness differed between Time points 2 and 3, Belongingness differed between Time 3 and 4, and, lastly, Agency differed between Time 3 and 4. Regarding Social Awareness, awareness was higher at Time 4, with an average of 3.34 at Time 3 and an average of 3.50 at Time 4. Belongingness was higher at Time 3 (3.61) than at Time 4 (3.31). Agency was also higher at Time 3, with an average of 3.75 at Time 3 and 3.54 at Time 4.

Table 11 Consecutive time point comparisons

SEL Variable	Time Point Comparisons			
	Time 1-Time 2	Time 2-Time 3	Time 3-Time 4	Time 4-Time 5
Restorative Mindset	$t(92) = -0.84, p = .40, \text{ns}$	$t(61) = -0.23, p = .82, \text{ns}$	$t(64) = 1.13, p = .26, \text{ns}$	$t(91) = 0.04, p = .97, \text{ns}$
Social Awareness	$t(92) = -1.59, p = 0.12, \text{ns}$	$t(61) = -2.18, p = .03, \text{sig}$	$t(64) = 0.24, p = 0.81, \text{ns}$	$t(91) = 0.27, p = .79, \text{ns}$
Belongingness	$t(92) = -0.47, p = .64, \text{ns}$	$t(61) = -0.28, p = .78, \text{ns}$	$t(64) = 3.60, p < .001, \text{sig}$	$t(91) = -0.29, p = .78, \text{ns}$
Emotion Regulation	$t(92) = -1.89, p = .06, \text{ns}$	$t(61) = 0.41, p = .68, \text{ns}$	$t(64) = -0.59, p = .56, \text{ns}$	$t(91) = -0.80, p = .43, \text{ns}$



School Value	$t(92) = -0.32, p = .75, \text{ns}$	$t(61) = 1.11, p = .27, \text{ns}$	$t(64) = -0.13, p = .90, \text{ns}$	$t(91) = 1.30, p = .20, \text{ns}$
Grit	$t(92) = -1.66, p = .10, \text{ns}$	$t(61) = 0.28, p = .78, \text{ns}$	$t(64) = -0.93, p = 0.36, \text{ns}$	$t(91) = 1.19, p = 0.24, \text{ns}$
Social Navigation	$t(92) = 0.67, p = .51, \text{ns}$	$t(61) = -1.27, p = .21, \text{ns}$	$t(64) = 0.99, p = 0.33, \text{ns}$	$t(91) = 0.41, p = .68, \text{ns}$
Self-Esteem	$t(92) = -0.09, p = .93, \text{ns}$	$t(61) = 0.21, p = .84, \text{ns}$	$t(64) = 1.39, p = .17, \text{ns}$	$t(91) = -0.68, p = .50, \text{ns}$
Agency	$t(92) = -1.20, p = .23, \text{ns}$	$t(61) = -0.32, p = .75, \text{ns}$	$t(64) = 2.62, p = .01, \text{sig}$	$t(91) = -1.90, p = .06, \text{ns}$

Context and Conclusions

Overall, the analysis of growth trends in social-emotional learning skills at Monarch showed positive results. More specifically, most constructs showed no change over time, with values consistently around a 3.0-4.0 out of a possible average of 5.0. We can look upon this positively because it shows that Monarch students had consistent levels of most social-emotional skills assessed, showing that they sustained their skills and strengths in social-emotional learning over time. Even when there were declines in constructs over time, values still stayed at a relatively positive level, showing that students at least had some level of skill across social-emotional skill areas. However, because the averages were around 3.0-4.0, this also suggests that there is room for future growth in these skill areas. In other terms, we would like to see means closer to 5.0, indicating the highest level of skill.

These results should be interpreted with caution. These results may not show the full impact of the programs at Monarch. These results are for students who had already been at Monarch for some time, meaning we likely are not capturing the initial social-emotional growth that happens at Monarch. We cannot estimate the impact of beginning school at Monarch. To do



this, we would need measures from the point of student entry into the Monarch system, then over time to show the impact of the programs. However, this represents an important first step in assessing the growth of Monarch student SEL skills. This study shows that students overall had acceptable levels of social-emotional skills that remained consistent across time. This indicates that Monarch provides an environment in which students feel engaged, agentic, safe, and like they belong. Monarch provides a context where students can regulate their emotions, see the value of school, and collaborate with others. Monarch is a place where students have an opportunity to feel good about themselves, show grit, become aware of others, and exercise their social navigation skills. There is room for improvement in each of these areas, but this study indicates that Monarch provides a supportive environment for that growth.

Future Efforts and Directions

This work will not end with the current study. As a part of its strategic aims, MSP will continue tracking social-emotional learning constructs using the same instrumentation described in this paper. The COVID-19 pandemic interrupted efforts to continuously collect these data, but also created a unique opportunity for MSP to conduct a second longitudinal study of social-emotional learning growth and sustenance. This study will begin in Fall 2022 and proceed over the following three years. Methods and instrumentation will be maintained from the current study, with the exception of also tracking data about each students' entry point into the MSP system, allowing for future work to explore differences based on length of time enrolled in MSP and creating the possibility of capturing the impact initial enrollment in MSP on students' social-emotional learning skills.