#edspaces

EDspaces
Designing the Future of Education
Charlotte, NC | November 7-9, 2023

Education Spaces to support Mental Health

Nov 7, 2023 4:00-5:00pm

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Researcher at School Outfitters

- Link between Physical Environment and Educational Outcomes

Psychology Department Adjunct Instructor, Sinclair Community College, Dayton, OH

Early Career: Case Worker

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Today's Takeaways

I hope you will be better able to answer these questions:

<u>Levers:</u> What are some conditions a school could change to address the decline in youth mental health?

<u>Metrics:</u> What observable changes in school behaviors would we expect to see if student mental health improves?

<u>Trends:</u> What initiatives are schools currently taking to address youth mental health?

<u>Spaces:</u> How can school spaces help?
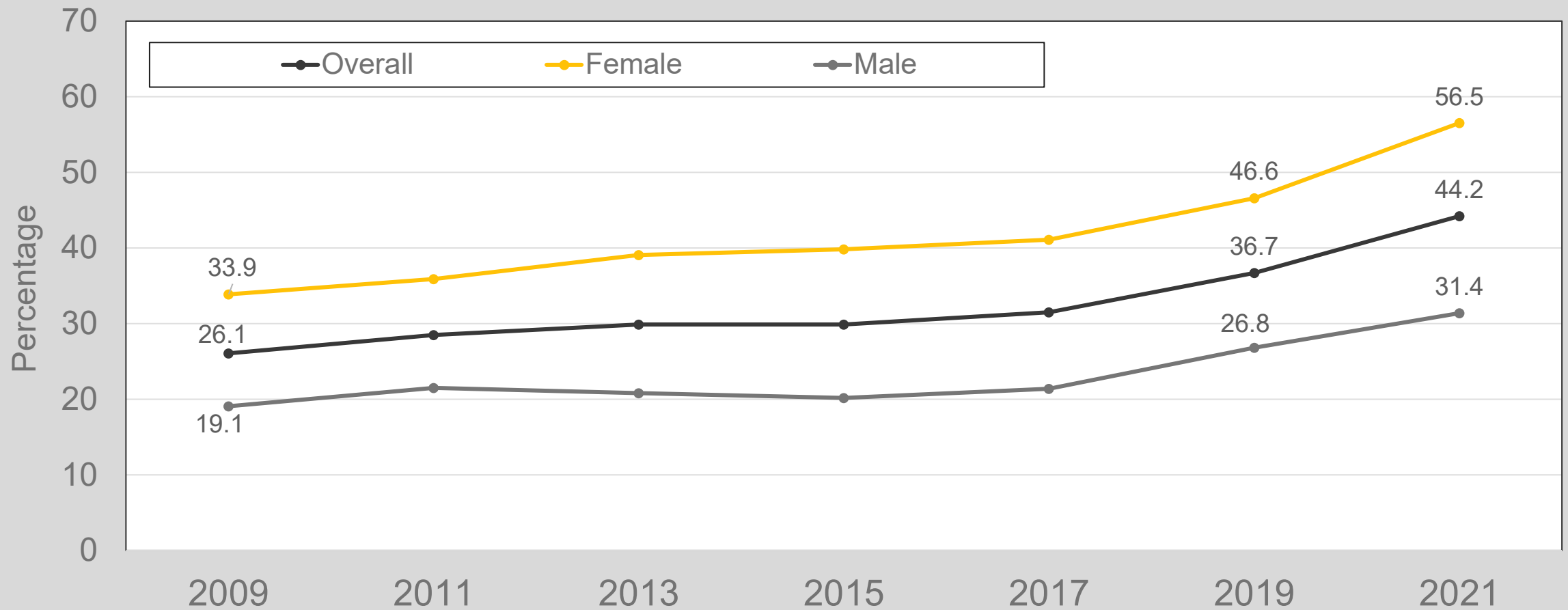
2:00

1:30

1:00

0:30

Student Issues

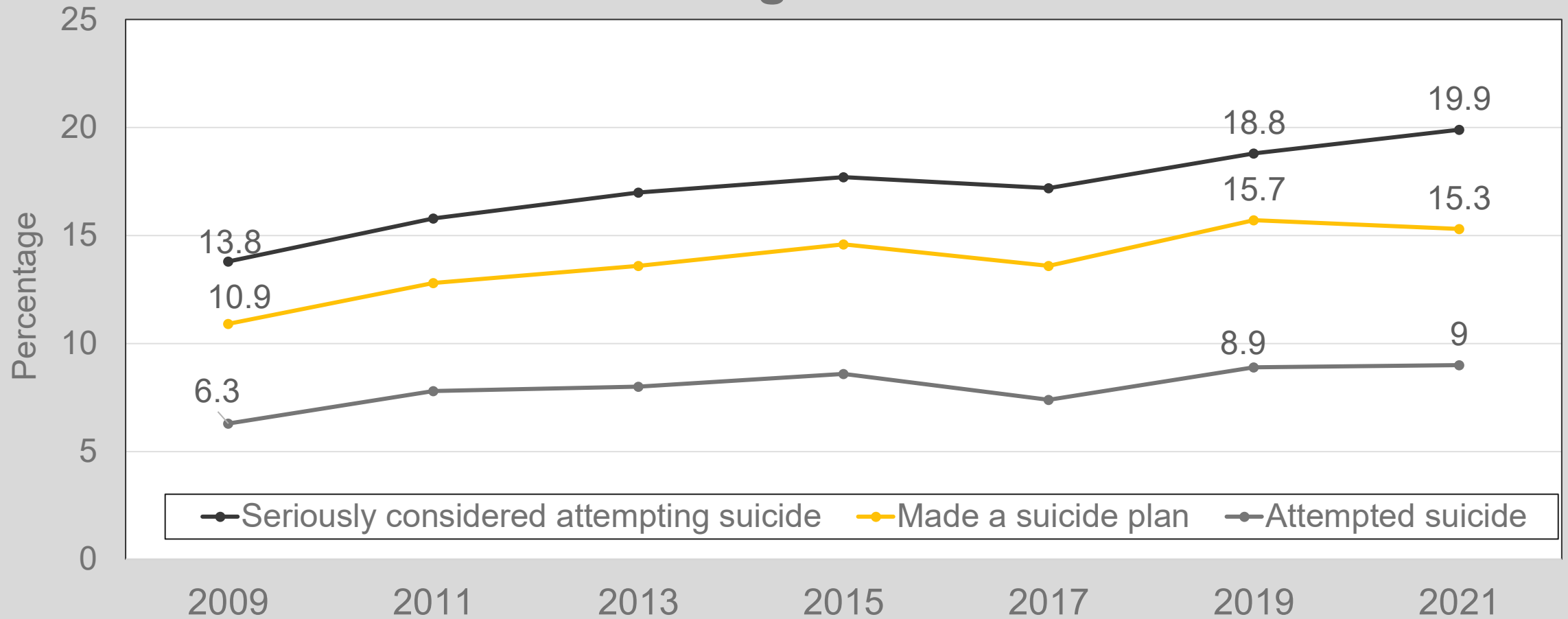- Summary of the Problem
- Behaviors that correlate with the Problem

Percentage of High School Students Reporting Persistent Sadness and Hopelessness

Legend: Overall, Female, Male

Year	Female	Overall	Male
2009	33.9	26.1	19.1
2021	56.5	44.2	31.4
2019	46.6	36.7	26.8

Links to CDC Source Material:
- https://www.cdc.gov/healthyyouth/data/yrbs/pdf/YRBSDataSummaryTrendsReport2019-508.pdf
- https://www.cdc.gov/mmwr/volumes/71/su/su7103a3.htm
- https://www.cdc.gov/healthyyouth/data/abes/tables/summary.htm#MH

Percentage of High School Students Reporting Suicidal Thoughts and Behaviors

Percentage

Year	Seriously considered attempting suicide	Made a suicide plan	Attempted suicide
2009	13.8	10.9	6.3
2011			
2013			
2015			
2017			
2019	18.8	15.7	8.9
2021	19.9	15.3	9

Seriously considered attempting suicide — Made a suicide plan — Attempted suicide

Links to CDC Source Material:
- https://www.cdc.gov/healthyyouth/data/yrbs/pdf/YRBSDataSummaryTrendsReport2019-508.pdf
- https://www.cdc.gov/mmwr/volumes/71/su/su7103a3.htm
- https://www.cdc.gov/healthyyouth/data/abes/tables/summary.htm#MH

Research on Student Depression

- Less In-Person Social Interaction

- More Internet & Social Media Use

  - Unrealistic Social Comparisons

  - Cyberbullying

- Fewer Activities that Foster Independence

  - Fewer Teens with Driver's Licenses

  - Fewer Teens with Jobs

  - Fewer Teens going Places without Parents

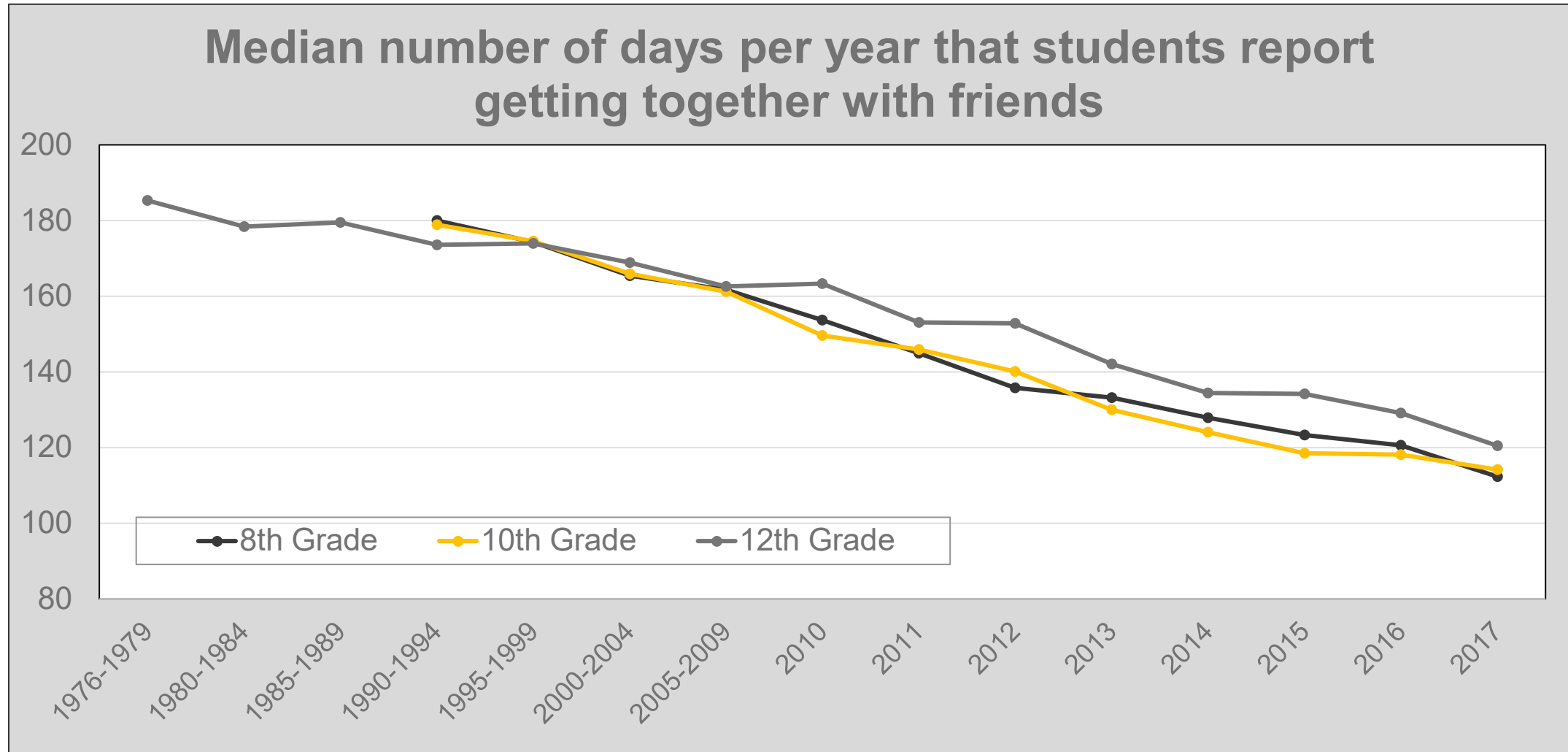Sources:
- Less in-person social interaction with peers among U.S. adolescents in the 21st century and links to loneliness - Jean M. Twenge, Brian H. Spitzberg, W. Keith Campbell, 2019 (sagepub.com)
- The Decline in Adult Activities Among U.S. Adolescents, 1976–2016 - Twenge - 2019 - Child Development - Wiley Online Library
- The Sad State of Happiness in the United States and the Role of Digital Media | The World Happiness Report

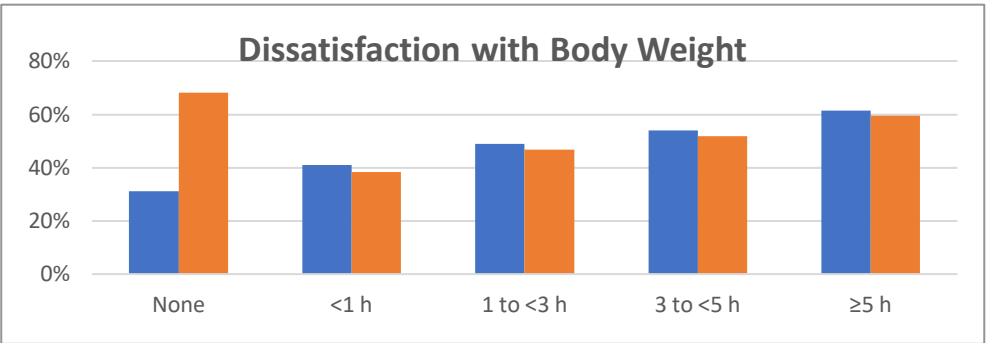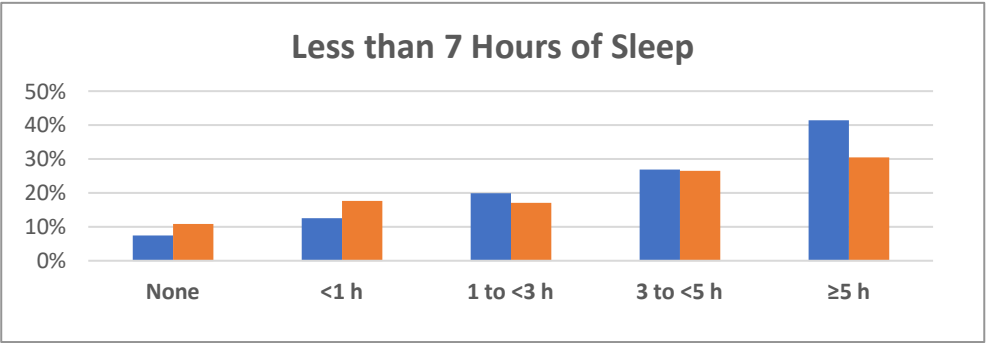SCHOOL OUTFITTERS®   1-800-260-2776 · www.SchoolOutfitters.com

Example – Declining In-person Interaction

Median number of days per year that students report getting together with friends

Legend: 8th Grade, 10th Grade, 12th Grade

X-axis: 1976-1979, 1980-1984, 1985-1989, 1990-1994, 1995-1999, 2000-2004, 2005-2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017

Y-axis: 80, 100, 120, 140, 160, 180, 200

Example – Fewer Activities that Foster Independence

Percent of students who say that they make any money at all through outside work

Legend: 8th Grade, 10th Grade, 12th Grade

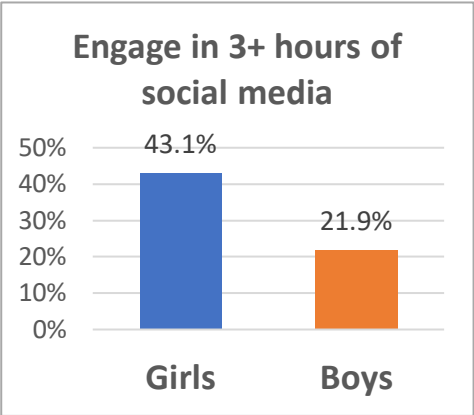X-axis: 1976-1979, 1980-1984, 1985-1989, 1990-1994, 1995-1999, 2000-2004, 2005-2009, 2010-2016

Y-axis: 0% to 80%
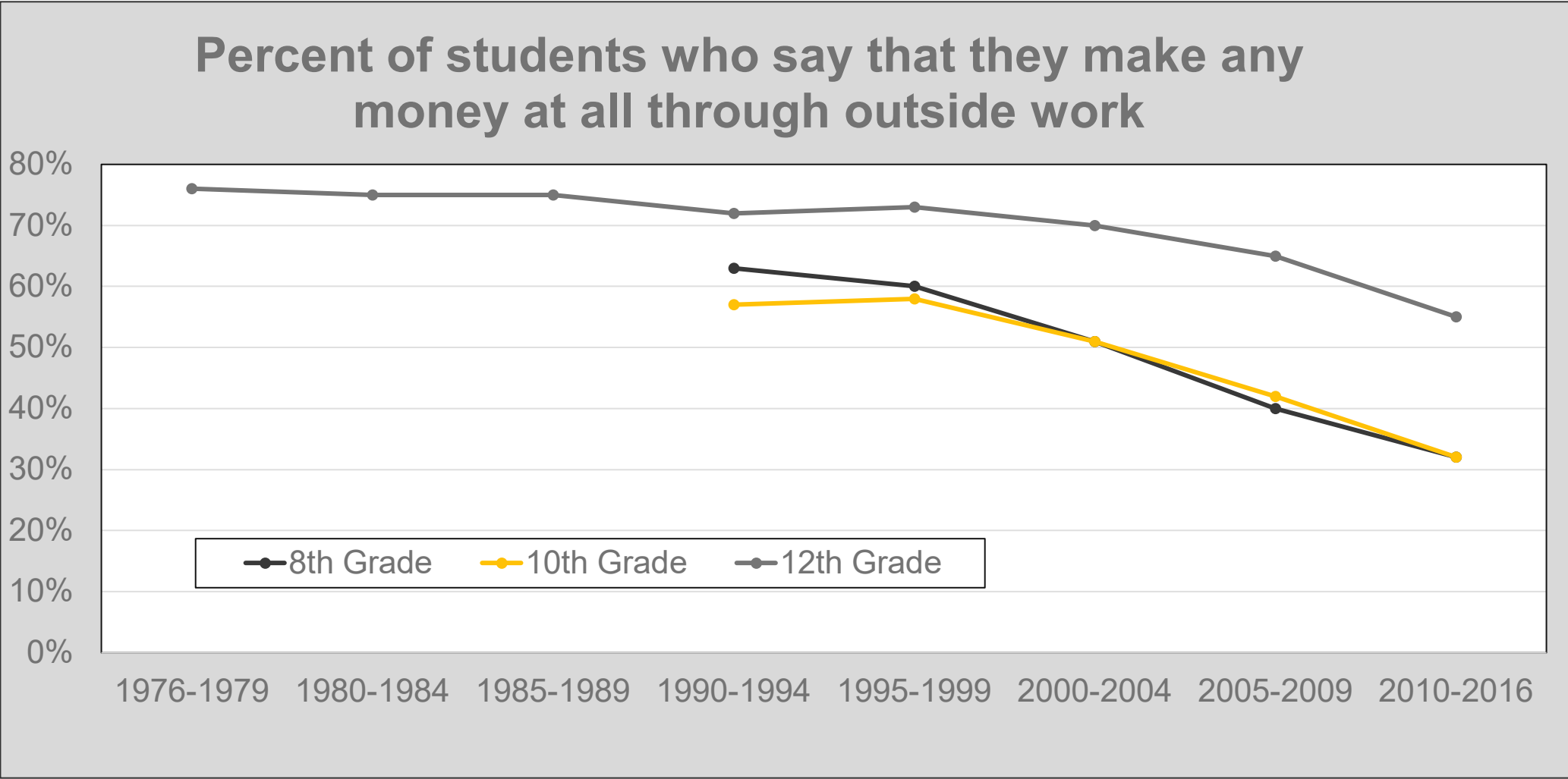
Data Source: The Decline in Adult Activities Among U.S. Adolescents, 1976–2016 - Twenge - 2019 - Child Development - Wiley Online Library

Note: Depression and Social Media Use

% Teens reporting at least some symptoms of Depression by amount of Social Media Use

Legend: ■ Girls ■ Boys

Reported Amount of Social Media Use	Girls	Boys
None	11.2%	7.4%
<1 hour	15.1%	7.2%
1 to <3 hours	18.1%	6.8%
3 to <5 hours	25.1%	11.4%
>5 hours	38.1%	14.5%

Engage in 3+ hours of social media

Girls 43.1%	Boys 21.9%

Reported being Victims of Online Harrassment

Girls 22.5%	Boys 11.5%

Less than 7 Hours of Sleep

(categories: None, <1 h, 1 to <3 h, 3 to <5 h, ≥5 h)

Dissatisfaction with Body Weight

(categories: None, <1 h, 1 to <3 h, 3 to <5 h, ≥5 h)

Data Source: Social Media Use and Adolescent Mental Health: Findings From the UK Millennium Cohort Study - eClinicalMedicine (thelancet.com)

School Issues & Potential Metrics

- School Behaviors resulting from Mental Health Issues
- Barometers for Assessing Progress on Mental Health Initiatives

Unexcused Absences

Linked with:
- **Generalized Anxiety Disorder**
- **Social Anxiety**

*Pooled odds ratios across 11 studies

Finning, et al. (2019). The association between anxiety and poor attendance at school : A systematic review.
Source:
https://eds.s.ebscohost.com/eds/pdfviewer/pdfviewer?vid=8&sid=5ff58b74-0dd0-4a10-96c3-8470ce559d58%40redis

School Refusal

Linked with:
- **Separation Anxiety**
- **Simple Phobia**
- **Social Anxiety**
- **Generalized Anxiety**

*Pooled across 6 studies

Finning, et al. (2019). The association between anxiety and poor attendance at school : A systematic review.
Source:
https://eds.s.ebscohost.com/eds/pdfviewer/pdfviewer?vid=8&sid=5ff58b74-0dd0-4a10-96c3-8470ce559d58%40redis

School Exclusion

Exclusion from school can trigger long-term psychiatric illness. (2017). Science Daily
https://www.sciencedaily.com/releases/2017/08/170829124507.htm

Ford, et al. (2017). The relationship between exclusion from school and mental health: a secondary analysis of the British Child and Adolescent Mental Health Surveys 2004 and 2007 | Psychological Medicine | Cambridge Core

Predictors:
- **Learning Disability**
- **Poor Parental Mental Health**
- **Poor Physical Health**

Bi-Directional Factors:
- **Poor Mental Health**
- **Poor Sociability**

More Common in:
- **Boys**
- **Secondary Students**
- **Lower Socio-Economic Class**
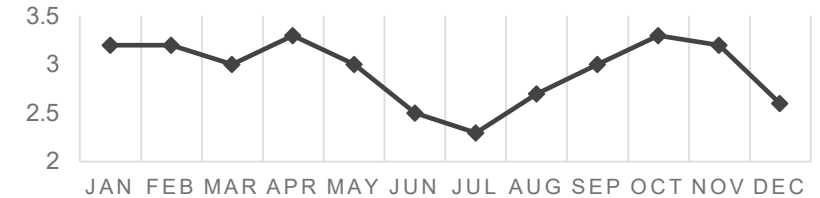
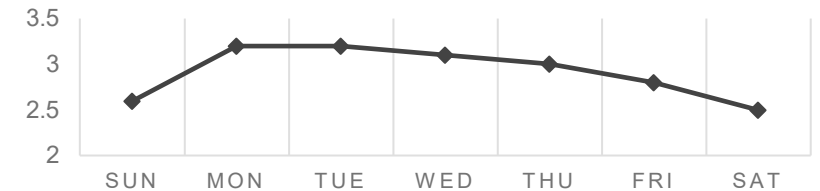# Self Harm During the School Year

Youth (8-17)

ER Visits
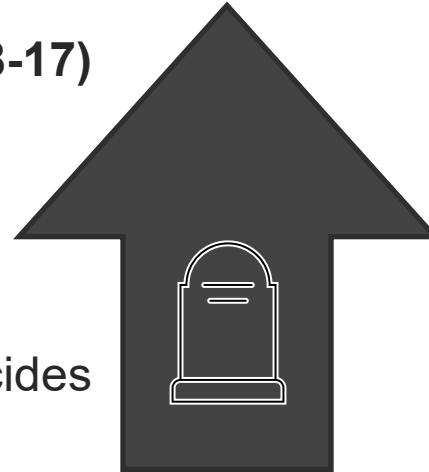
*In youths, ER visits drop off in summer and during holidays.

Source: Scientific American. Children's Risk of Suicide Increases on School Days - Scientific American

Youth (8-17)

Suicides

Young Adults (18-30)

*In young adults, suicides peak in the summer.

YOUTH SUICIDE RATES (PER 100,000) BY MONTH

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

YOUTH SUICIDE RATES (PER 100,000) BY DAY-OF-WEEK

SUN MON TUE WED THU FRI SAT
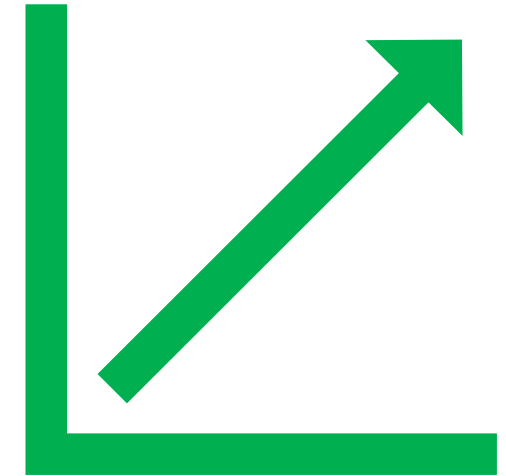
Social-Emotional Competencies

Poor Mental Health leads to Isolation.[1]
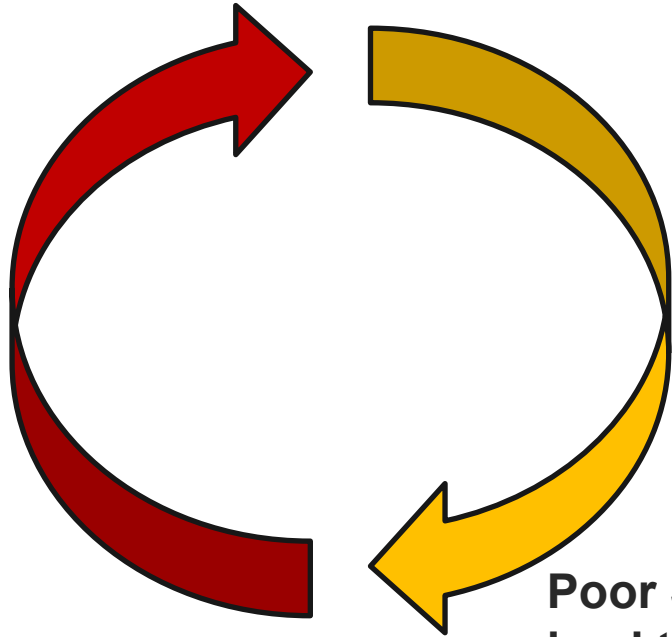
Poor Social skills lead to Poor Mental Health Outcomes.[2]
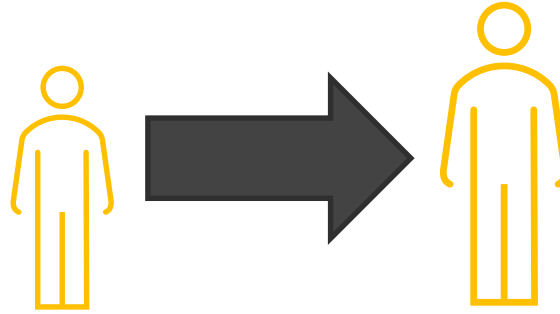
Concerning Social Emotional Competencies in Youth predict Mental Health in Adolescence.[3]

Social-Emotional Programming tends to be Positively Associated with Improved Well-being.[4]

Social-Emotional Competencies - Sources

[1] Mental Health and Social Isolation Understanding Mental Health as a Public Health Issue (tulane.edu)

[2] Indirect Effects of Social Skills on Health Through Stress and Loneliness. https://www.tandfonline.com/doi/abs/10.1080/10410236.2017.1384434?journalCode=hhth20

[3] Association of Childhood Social-Emotional Functioning Profiles at School Entry With Early-Onset Mental Health Conditions. Association of Childhood Social-Emotional Functioning Profiles at School Entry With Early-Onset Mental Health Conditions - PMC (nih.gov)

[4] Review Article: The Role of Social and Emotional Skills in Developing Mental Health of Children. https://www.childresearch.net/papers/health/2019_01.html
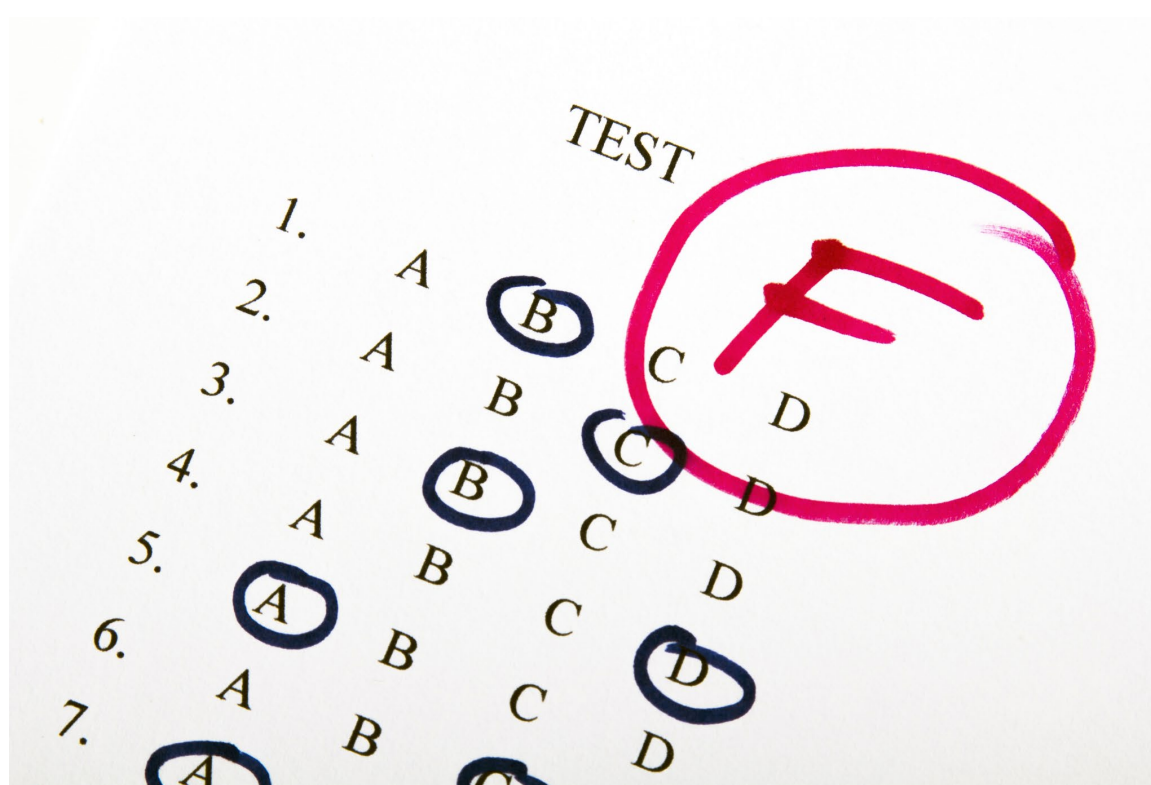
[4] The intersection between mental health and social-emotional learning. https://readingpartners.org/blog/the-intersection-between-mental-health-and-social-emotional-learning/
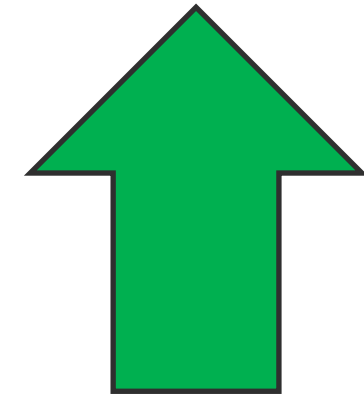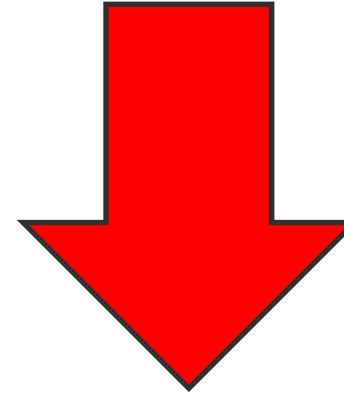
Academic Decline

Depression

Psychosocial Well-Being

Maybe a Gender Difference
- **Boys (externalizing symptoms)**
- **Girls (internalizing symptoms)**

Sources:
- NASP Research Summaries: MentalHealthAcademicAchievement_2020 (2).pdf
- Mental Health Associations with Academic Performance and Education Behaviors in Canadian Secondary School Students - Markus J. Duncan, Karen A. Patte, Scott T. Leatherdale, 2021 (sagepub.com)

School Solutions

Levers for addressing mental health
- School Initiatives
- Designs that support them

Solution 1
Multi-Tiered Systems of Support (MTSS)

District Plans

|	2018/19 District Percent	2023 District Percent	Difference
MTSS	17.9%	31.6%	13.7%
MENTAL HEALTH	30.5%	40.4%	9.8%
INCLUSION	23.2%	30.9%	7.7%
COMMUNITY ENGAGEMENT	27.0%	34.0%	7.0%
EXCELLENCE	45.3%	52.3%	7.0%
BILINGUAL	4.9%	11.6%	6.7%
CERTIFICATION	19.3%	25.3%	6.0%
ATTENDANCE	47.0%	53.0%	6.0%
RESTORATIVE	13.0%	18.2%	5.3%
INSTRUCTIONAL MATERIALS	8.4%	13.3%	4.9%
TRUST	22.5%	27.0%	4.6%
SEL	25.6%	30.2%	4.6%
ASSESSMENT	70.9%	75.1%	4.2%
ELA	24.9%	28.8%	3.9%
CYBERSECURITY	2.1%	5.6%	3.5%

Reprinted from:
Burbio School Tracker: Strategic Trends

Trends in District Planning for MTSS

PREVALENCE OF KEYWORDS IN DISTRICT STRATEGIC PLANS
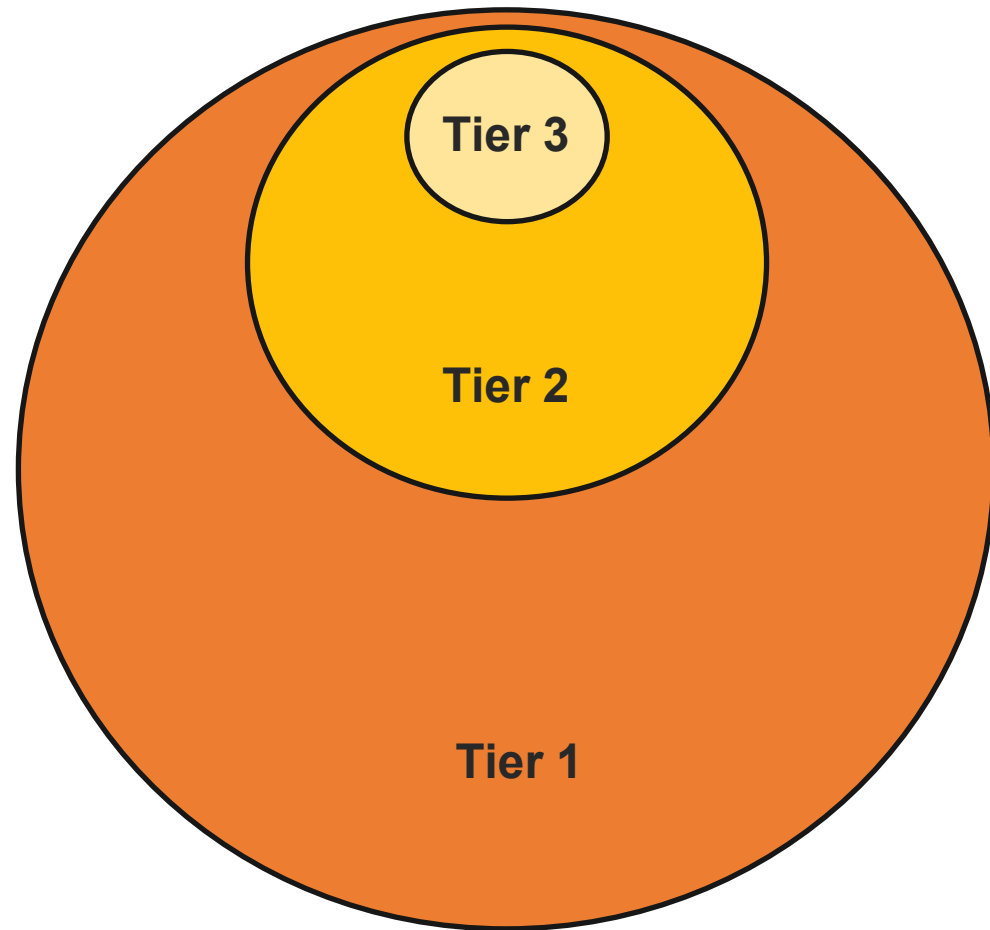MULTI-TIERED SYSTEM OF SUPPORTS/MTSS

Reprinted from:
Burbio School Tracker: Strategic Trends
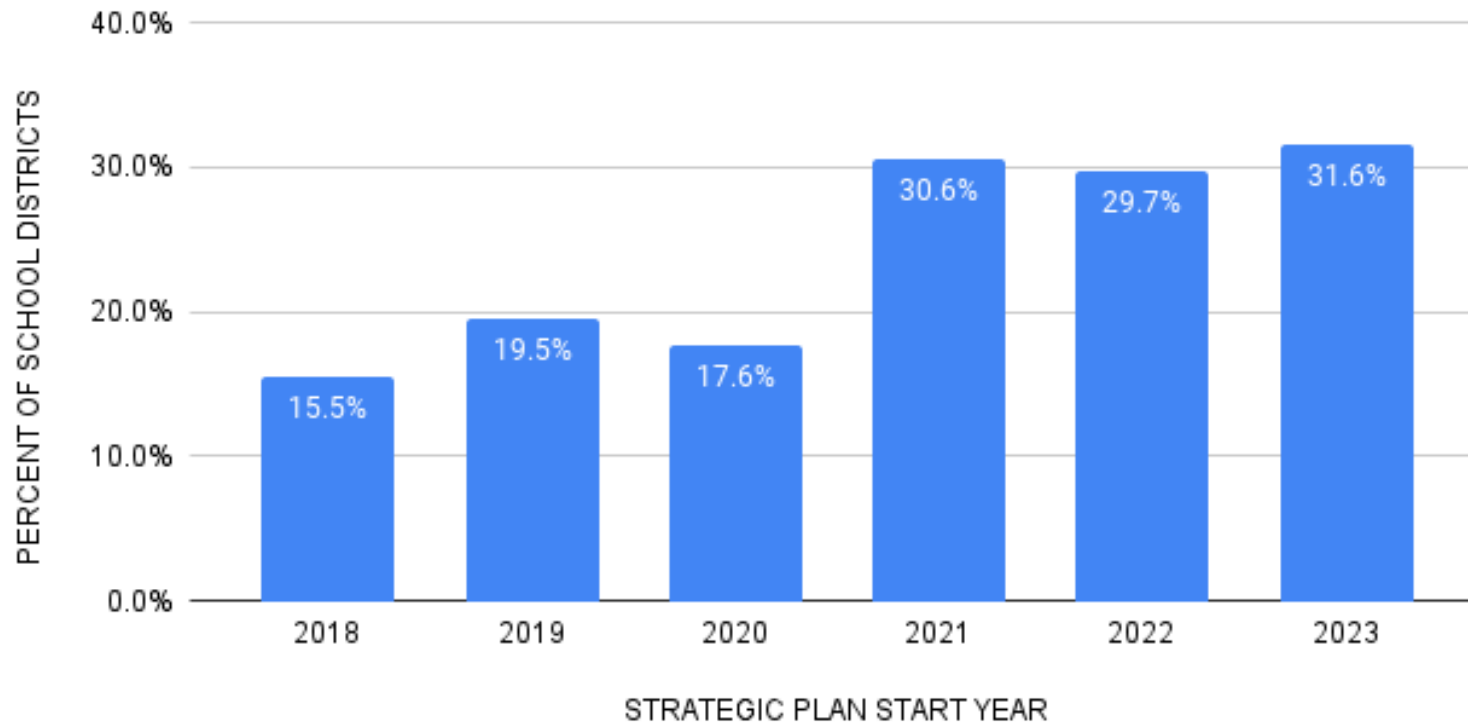
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Multi-Tiered Systems of Support (MTSS)

Tier 3

Tier 2

Tier 1

Source material listed on a separate slide.

Inclusive Education System
- Academic Support
- Behavioral Support
- Mental Health Support
- Social Emotional Learning Support

Tier 1 (all students)
- Universal assessments for Proactive Evaluation
- SEL and Academic Supports at all times

Tier 2 (some students)
- Supplemental Support in Groups

Tier 3 (few students)
- Intensified Support
- Individualized Sessions (could involve outside agencies and specialists)

Possible MTSS Activities

Tier 1 (all students)
- Collaborative Learning
- Blended Learning
- Learning Stations

Tier 2 (some students)
- Small group discussions
- Art therapy sessions
- Tutoring sessions
- Group relaxation or mindfulness activities

Tier 3 (few students)
- Individual PT, OT, Psychotherapy
- Sensory or tranquility time
- Individual Tutoring

Source Material for MTSS

[Essential Components of MTSS Infographic Collection | Center on Multi-Tiered Systems of Support (mtss4success.org)](#)

[Using MTSS to Address Students' Mental Health (ed.gov)](#)

[MTSS: What Is a Multi-Tiered System of Supports? (edweek.org)](#)

[Multi-Tiered Systems of Support (MTSS) - YouTube](#)

[Introduction to MTSS Visual - YouTube](#)

[Tiers are Not a Location - YouTube](#)

Tier 1 – Variety to support all students

Room Dimensions
28' L x 32' W

Inclusion: Many sitting or standing options to address attentional and sensory needs.

Flexibility: Mobile desks, chairs, and whiteboards promote differentiation.

Collaboration: Desk Shapes fit into group configurations with good sightlines.

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Tier 2 – Additional Resource Support

Room Dimensions
18' L x 20' W

Ownership: A variety of seating options empowers students with the ability to choose how they want to receive supplemental help.

Accommodation: Height adjustable furnishings allow students with mobility devices to be included.

Inviting: Appealing colors and comfortable seating reduce the "institutional" feel of Tier 2 spaces.

Tier 3 – Intensive Individual Support

Unintimidating: A less formal setting with soft furniture reduces the potential for the space to have a "punitive" look.

Informal Gathering: Small gathering areas allow for family and professional interventions.

Work surfaces: Small desktop surfaces allow students and professionals to visually communicate or to record their thoughts during sessions.

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Solution 2.
Social-Emotional Learning
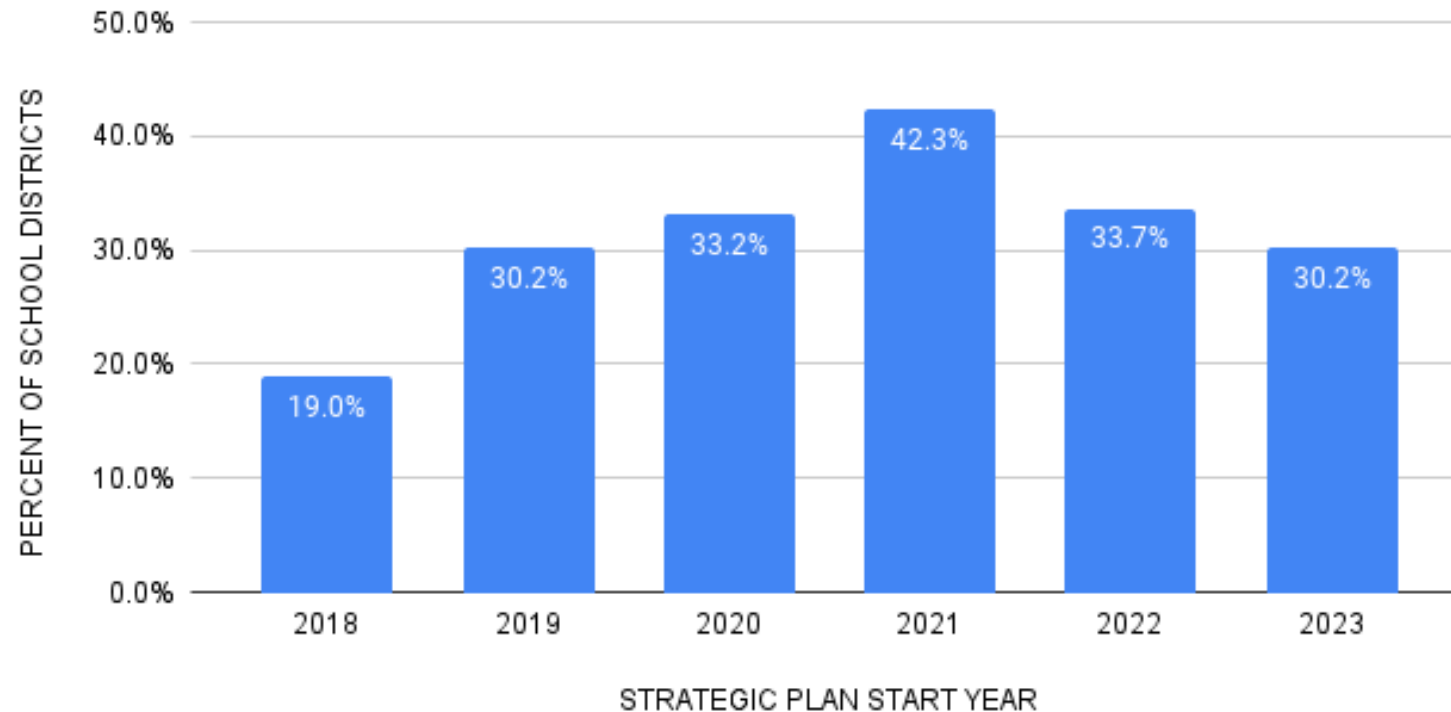
Trends in District Planning for SEL

PREVALENCE OF KEYWORDS IN DISTRICT STRATEGIC PLANS
SOCIAL-EMOTIONAL LEARNING/SEL

Reprinted from:
Burbio School Tracker: Strategic Trends

Social Emotional Learning Initiatives

More explicit SEL in Preschool and Elementary School

- Circle Time

- Songs & Games

- Talk Through/Identify Feelings

- Group SEL Activities

- Teacher-Led Discussions

Embedded in the curriculum as students get older

- Literature & Composition

- History, Social Studies, & Other Humanities

- Participation in Social Service, Advocacy

- Extra-Curricular Opportunities and School Involvement

Preschool Designs to promote SEL

Room Dimensions
33' L x 24' W

Circle Time: Large rugs offer gathering spaces for whole class discussions, activities, lessons, and stress-reducing activities.

Group Activities: Collaborative Tables inspire activities that enhance sharing, dialog, and compromise.

Emotional Expression: Spaces for art and dramatic provide these opportunities.

Quiet Time: Soft seating lets children separate as a means of emotional regulation.

Elementary School Designs to promote SEL

Room Dimensions
23.5' L x 28' W

Group Pods: Tight groupings allow participants to have their own space and easily interact with each other.

Flexible Arrangements: Lightweight chairs and stools let students get into the groups they need.

Expression: Whiteboard tabletops and mobile media assist with expression.

Tech Area: Permits the use of digital media for SEL content or to calm down with videos.

Middle/High School Designs to promote SEL

Room Dimensions
32' L x 29.5' W

Discussion Groups: Facilitate peer-to-peer conversations to share experiences and develop empathy.

Inclusion: Variety in standing or sitting options accommodate students with different postural needs.

Expression: Whiteboard tabletops and mobile media.

Flexibility: Workspaces allow groups to gather as needed.

Solution 3
General Mental Health Focus

Trends in District Planning for Mental Health

PREVALENCE OF KEYWORDS IN DISTRICT STRATEGIC PLANS
MENTAL HEALTH

PERCENT OF SCHOOL DISTRICTS

Strategic Plan Start Year	Percent
2018	23.3%
2019	35.5%
2020	40.6%
2021	43.0%
2022	42.8%
2023	40.4%

STRATEGIC PLAN START YEAR

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General Mental Health: Acute Situations

Tranquility Rooms
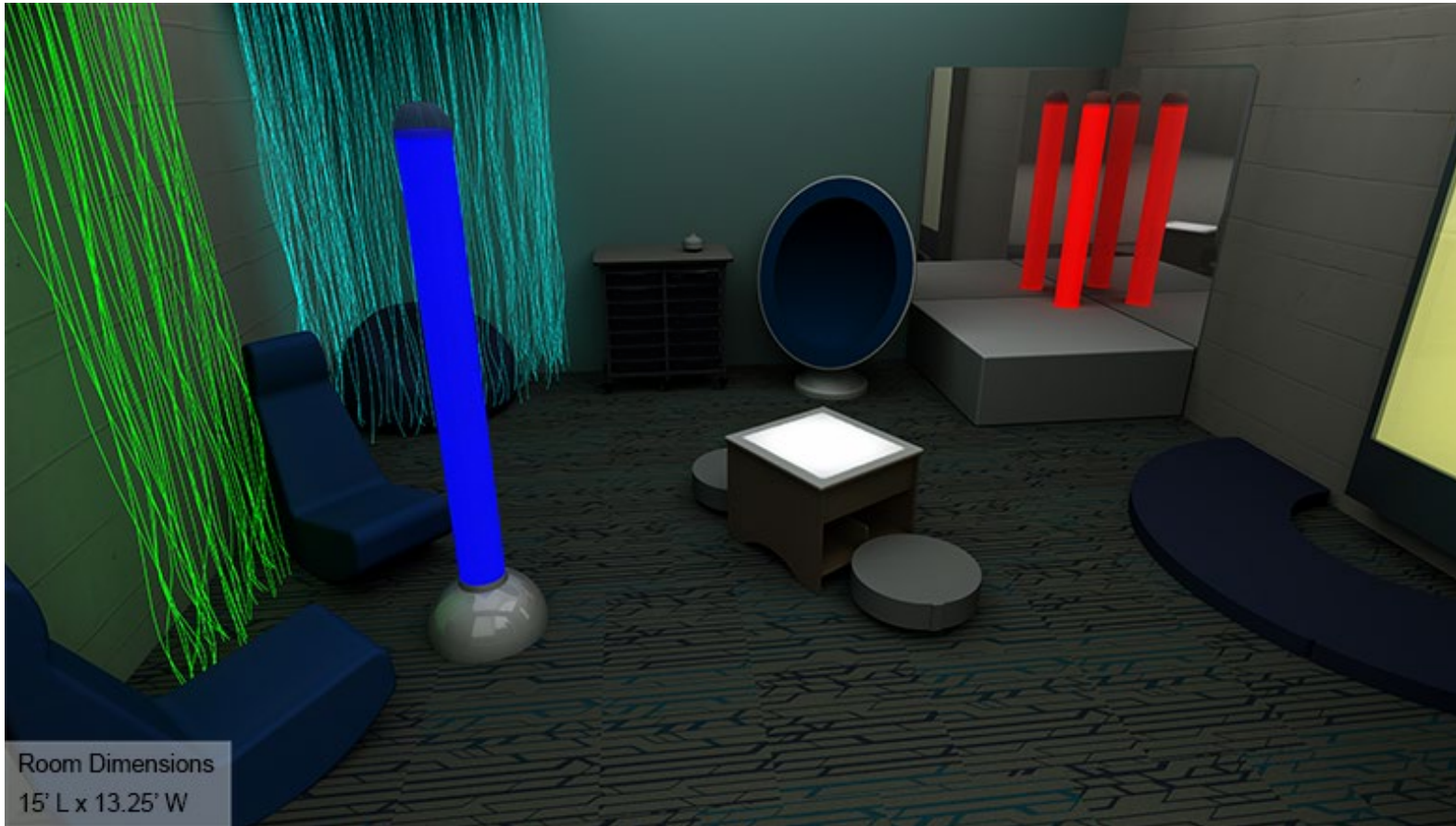

Room Dimensions
18' L x 14' W

Decompress from Stress

Dedicated Calming Space

Design Thoughts:

- Variety of Comfort Seating Options
- Cool-Calming Colors
- Biophilia (Images, Plants, and Objects)
- Writing Surfaces
- Access to calming items (e.g., stress balls, fidget spinners, paper, markers)

Sensory Rooms

Room Dimensions
15' L x 13.25' W

Refuge from Overwhelming Sensory Input

Design Thoughts:

- Away from high-traffic areas

- Control over sensory equipment (e.g., light intensity, sounds)

- Enough light for easy maneuverability

- Access to calming items (e.g., stress balls, fidget spinners, paper, markers)

Breakout Rooms

Room Dimensions
28' L x 13' W

Quick Go-To Places – Reduces Embarrassment during Stress

Could be Multipurpose Project Areas

Design Thoughts:

- Convenient Locations

- Reduce Visibility Inside (tinted glass, ability to turn away)

- Seating

- Space for Personal Belongings

- Writing Space

Outdoor Benches & Tables

Immediate place to be alone during stress

Still on school grounds in a monitored area

Benefits of Outdoor Air & Light

Design Thoughts:

- Spacing to allow personal separation

- Shade/Shelter

- Wipe-down surfaces (weather)

- Writing Surfaces

- Variety of Seating Options

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Individual Nooks

Getting away from the crowd without being totally alone

Spaces:

- Libraries/Learning Commons

- Common Areas

Design Thoughts:

- Semi-enclosures or divider panels

- Full enclosures with acrylic doors

Nurse's Office

Students can discuss Mental Health Concern under the banner of "not feeling well".

First care for self-harming students.

Other Mental Health Applications:

- Referral for services
- Information about Community Resources
- Psychotropic Prescriptions

General Mental Health:
Overall Health and Well-Being

Indoor Spaces with Access to Light

Room Dimensions
82' L x 24' W

Consider Common Areas

- Entryways/Lobbies
- Cafeterias
- Libraries

Room Dimensions
41.75' L x 45' W

Consider Seating Variety to Invite students into these areas

Outdoor Spaces

Space Dimensions
152' L x 81.5' W

Benefits
- Oxygen Uptake
- Sunlight – Serotonin & Vitamin D
- Connection to Nature

Space Dimensions
48' L x 49' W

Activities
- Outdoor Dining
- Outdoor Classrooms
- Recreation Areas

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Solution 4
School Connectedness and
Building Resilience

Fostering Connectedness to Build Resilience

HOPE Framework (Academic Pediatrics Association)

- Nurturing, supportive relationships
- Safe, stable, protective, and equitable environments
- Connectedness and constructive social engagement
- Learning social and emotional competencies

School-Related Positive Childhood Experiences (derived from National Survey of Children's Health)

- After school activities
- Volunteer Opportunities
- Mentoring for Advice or Guidance
- Sharing Ideas with a Caregiver

Sources:
- [Responding to ACEs With HOPE: Health Outcomes From Positive Experiences - Academic Pediatrics (academicpedsjnl.net)](academicpedsjnl.net)
- [Positive Childhood Experiences Promote School Success (ohionet.org)](ohionet.org)

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School Connectedness:
Social Interaction

Furnished Common Areas

Room Dimensions
49' L x 25' W

Benefits:

- Informal gathering

- Potential student-teacher interactions

- Potentially reduces student isolation

Areas:

- Larger Hallways

- Entryways

- Locker Areas

- Large Stairway Areas

Student Centers and Lounges

Room Dimensions
41.6' L x 25' W

Benefits:

- Student Involvement

- Connectedness through cohorts

- Informal student gathering

Design Considerations:

- Seating choices

- Ample tabletop space

- Mobile Furnishings

- Device Charging

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Student Clubs and Activity Centers

Room Dimensions
33' L x 24.25' W

Benefits:

- Connectedness - school-sponsored activities
- Collaboration – projects
- Achievement – working toward a goal.

Design Considerations:

- Access to resource materials
- Access to information-sharing media
- Ample seating and workspace
- Mobile Furnishings

Group Project Areas

Room Dimensions
55' L x 37.5' W

Benefits:

- Collaboration
- Between-Group Interaction
- Socialization

Design Considerations:

- Collaborative Tables
- Good sightlines
- Ample walkways to other pods
- Access to power, media and materials

Dining Areas

Room Dimensions
60' L x 40' W

Benefits:

- Socialization & Informal Gathering

- Multifunction Area (tutoring, group work, activities)

Design Considerations:

- Inviting Furnishings & Decor

- Options for Student Choice

- Outdoor – change of scene; health

- Access to power, media and materials

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School Connectedness:
Achievement & Self-Efficacy

Art & Video Production Spaces

Room Dimensions
30' L x 25' W

Concepts

- ○ Therapy through Visual Expression
- ○ Opportunity for Skill-Building
- ○ Immersion in Mindful Activities

Room Dimensions
22' L x 12' W

Considerations

- ○ **Possibility for Drop-In Participation?**
- ○ **Training on Specific Tools?**
- ○ **Possibility for After-Hours Use?**

Music Rooms

Room Dimensions
41' L x 36.25' W

Concepts
- **Emotional Release through Performance**
- **Chance to focus on refining skills**
- **Mindfulness on the present moment**

Considerations
○ Possibility for Drop-In Use?
○ Access to Music and Instruments?
○ Possibility for After-Hours Use?

Computer & Digital Media Rooms

Room Dimensions
31.5' L x 26' W

Opportunities:

- Digital Skill Building (Photoshop, Video, Coding, 3D Printing)

- Digital Content (streaming, blogs)

- Additional Learning (language, podcast)

- Potential MTSS Tier 2 "catch up"
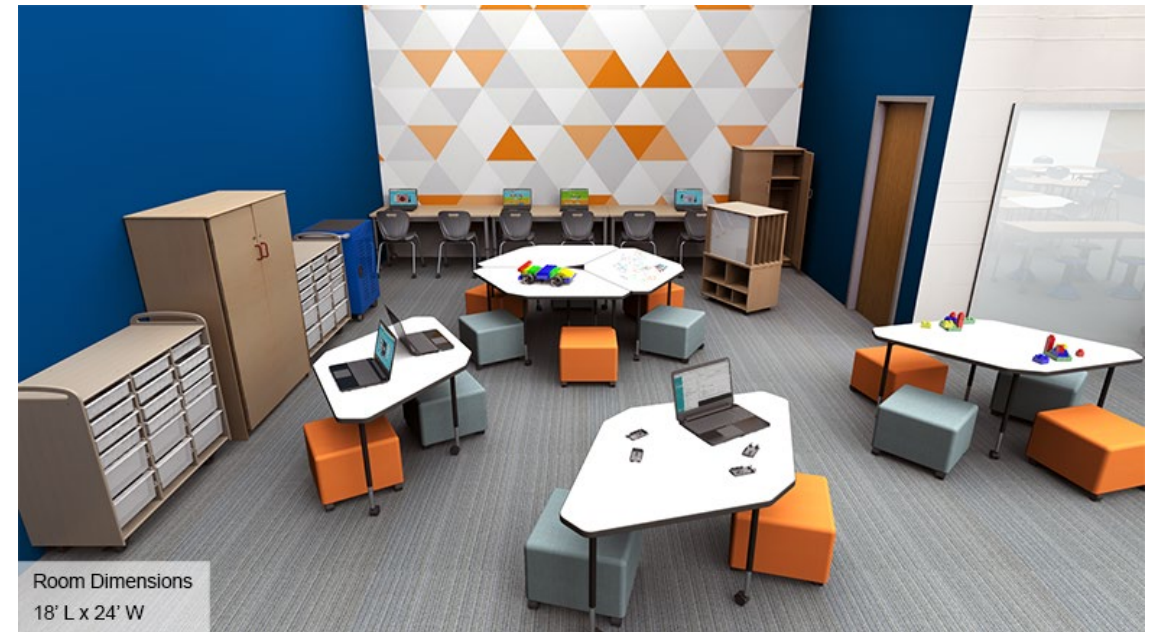
Makerspaces

Room Dimensions
33.5' L x 23.75' W

Concepts
- Shift from Emotional Thinking to Solution-Based Thinking
- Engage Analytical Reasoning
- Build Confidence by building something

Room Dimensions
18' L x 24' W

Considerations
- Possibility for Drop-In Participation?
- Access to Tools and Materials?
- Mentoring Available?

School Connectedness: Recreation

eSports & Gaming

Opportunities:
- Varsity eSports Teams, especially in High School and Middle School
- Possible Recreational Use

Considerations
- Possibility for Drop-In Participation?
- Scheduled Use?
- Oversight of eSports Room?

Outdoor Play

Space Dimensions
57' L x 50' W

Playgrounds
- Consider Multiple Activity Centers

Recreational Use/Exercise
- Walking Trails
- Trees, Natural Flora

Sports Areas

- Recreation Areas during School
- Opportunities for Connectedness After School
- Tie with Community (e.g., Outside Sports Leagues)

Today's Takeaways

I hope you will be better able to answer these questions:

<u>Levers:</u> **What are some conditions a school could change to address the decline in youth mental health?**

<u>Metrics:</u> **What observable changes in school behaviors would we expect to see if student mental health improves?**

<u>Trends:</u> **What initiatives are schools currently taking to address youth mental health?**

<u>Spaces:</u> **How can school spaces help?**

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Thank You!

Please scan the QR code to provide session feedback.

SCAN ME